

REPORTSTAR™

Training Guide



SANYO



MicroPro

ReportStar™

Training Guide

For ReportStar Release 1.0

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San Rafael, California 94903 USA**

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TABLE OF CONTENTS

INTRODUCTION i

How to Use the Training Guide

Meet Zephron

The Example Files You'll Use

Starting Up

CHAPTER 1: Create a Simple Quick
Report 1-1

CHAPTER 2: Asking for a Quick Total 2-1

CHAPTER 3: Printing a Key Subtotal 3-1

CHAPTER 4: Asking for a Second Subtotal ..4-1

CHAPTER 5: FormSort and the Quick Report 5-1

CHAPTER 6: Looking at a Quick Report 6-1

CHAPTER 7: Designing Your Own Report ...7-1

CHAPTER 8: Adding to a Quick Report 8-1

IN CONCLUSION..... A-1

A Review of RGEN, the Quick Report Program

A Review of REDIT, the Report Edit Program

A Review of the REPORT Program

Using ReportStar for Your Applications

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How to Use the Training Guide

The Training Guide instructions will show you how to create and run at least one report in each chapter. All the instructions will be in boxes. These instruction boxes include an illustration of a computer terminal screen as it will look after you enter the commands in the instructions.

Pages with instruction boxes have numbered titles and these titles are in capital letters (e.g., 1. CALL UP THE QUICK REPORT.) Pages without instruction boxes have titles in upper and lower case (e.g., Look At What You've Done). These titles are not numbered.

You will use one of the following two keys on your keyboard in nearly every instruction: the key labeled "CTRL" and the key labeled "RETURN" (or perhaps "ENTER"). These two keys are represented by the following symbols:



Other keys you press will be boldfaced and in capital letters. For example:

SPACE BAR, ESC,  C

Instructions that you must type are preceded by the word **TYPE** in capital letters. You must type each letter, space, and punctuation mark following the word "TYPE." For example:

TYPE RGEN CHAPTER1

To follow this instruction you would type the letters R, G, E, and N, then a space, then the letters C, H, A, P, T, E, R, and the number 1 (leaving no space between Chapter and 1).

Commands to use if you want to stop in the middle of a chapter will be in the footnote section of many pages.

You might want to turn to the Reference Manual for more information while you are using the Training Guide or later when you're reviewing what you've learned. To assist you, many pages include Reference Manual Procedure Numbers in the footnote section. You do not need to refer to the Reference Manual while you are doing an exercise in the Training Guide.

REFERENCE
MANUAL



Meet Zephron

This Training Guide shows you how to use ReportStar to manipulate the information stored in datafiles and print the information in the form of reports.

We have provided you with an example database to use with the Training Guide. This example database was created with DataStar 1.4 for a mythical company named Zephron, Inc. Zephron sells widgets, gadgets, gizmos, whatsits, and bodkins to customers throughout the country.

In the beginning, Zephron collected data manually. But Mr. Z, the president of Zephron, soon discovered DataStar. He began to use DataStar to collect and store information about products, customers, orders, accounts receivable, and personnel.

Sales were transacted and orders entered into a DataStar file by three salespeople. Zephron kept balance due data in a datafile along with customer names and addresses and also maintained a datafile to store payments received. In addition, Zephron had a datafile of product names, prices, and quantities on hand and a datafile that stored a list of Zephron salespeople.

Of course once all this data was collected, Mr. Z wanted to look at it in a variety of forms to evaluate the company's progress. Unfortunately, his staff spent so much time assembling reports from the data that the reports were old news by the time they reached his desk.

Tired of outdated reports, Mr. Z bought ReportStar and gave the programs to his sales manager and accountant. At first they didn't want to take time from their busy schedules. But after running their first Quick Report they were convinced that ReportStar would be useful in their daily work — and it would save them time. As they began to think of new reports they wanted, they quickly learned how to give ReportStar the instructions for those reports.

You'll see the Zephron sales manager and accountant in cartoons throughout the Training Guide. As they think of new reports to create from their DataStar files, you'll learn how to enter the instructions in ReportStar.

The Example Files You'll Use

INVCE.DTA	This datafile has data entered on the Order form, including date, order number, customer and staff ID codes, customer name, quantity, products, price, sales tax, total order.	PAYMENTS.DTA	A file that contains customer ID codes, date of payment, and amount of payment.
INVCE.DEF	The form definition file for INVCE.DTA. The form is used in DataStar to enter each order from a customer. Some of the fields on this form are intermediate fields.	PAYMENTS.DEF	The form definition file for PAYMENTS.DTA.
INVCE.NDX	The index file for INVCE.DTA.	PAYMENTS.NDX	The index file for PAYMENTS.DTA.
CLIENTSR.DTA	This datafile has customer ID codes, customer names, addresses, the balance due, and the date the balance due was entered.	PRODUCTR.DTA	This datafile has product names, wholesale and retail prices, and quantity in stock.
CLIENTSR.DEF	The form definition file for CLIENTSR.DTA.	PRODUCTR.DEF	The form definition file for PRODUCTR.DTA.
CLIENTSR.NDX	The index file for CUSTOMER.DTA.	PRODUCTR.NDX	The index file for PRODUCTR.DTA.
		STAFF.DTA	This datafile is used as a reference file for the ORDER form. It has salesperson names and ID codes (STAFF IDs).
		STAFF.DEF	The form definition file for STAFF.DTA.
		STAFF.NDX	The index file for STAFF.DTA.

Starting Up

Please complete the following steps before you continue:

1. Read the General Information Manual. You must follow the directions on p.28 of the General Information Manual before you begin the Training Guide.
2. Turn on all your machines and boot your system. The Training Guide has no instructions for operating system or hardware use. To learn how to boot and use your hardware and operating system, you will need to refer to your system manuals.
3. Make one copy of the ReportStar Distribution Disk and store the original in a safe place.
4. Install ReportStar using the instructions in Appendix B of the User Reference Manual.

Here are some HELPFUL HINTS for users with dual drive systems:

Put your copy of the ReportStar Distribution Disk in your logged disk drive. Put a blank disk in the other drive, and use this disk for all your working files.

The Training Guide doesn't have commands specific to any type of system, so you will have to enter the code for the disk drive that has your "working file" disk before you enter the report file name.

For example, in Chapter 1, you will enter the report specification file name, "CHAPTER1." Remember to precede this name with the code for the disk drive that has the disk for your working files (e.g., B:CHAPTER1). Follow this same procedure in each chapter to keep all your working files on one disk.

CHAPTER 1

Create a Simple Quick Report

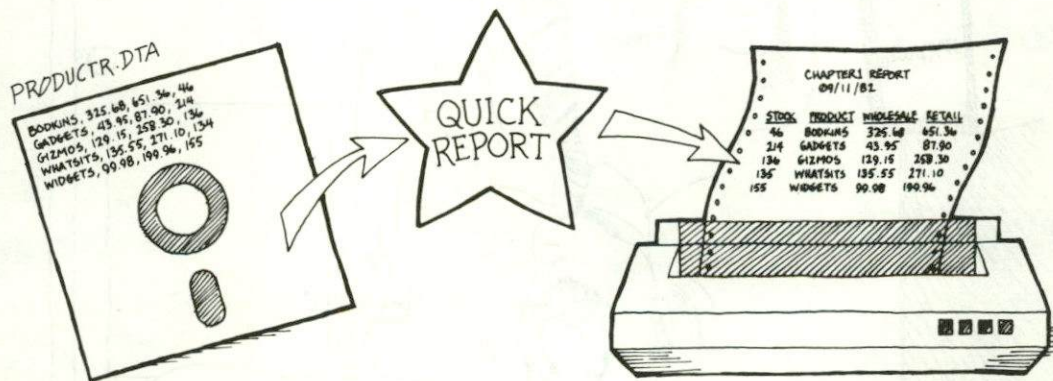
CHAPTER CONTENTS

What You'll Do in This Chapter	3	6. GO TO THE EXIT SCREEN	14
The Example Files You'll Use	5	<i>Behind the Screens</i>	
1. CALL UP THE QUICK REPORT	6	The Exit Screen	15
2. NAME A FILE FOR THIS REPORT	7	7. SELECT "R" TO SAVE	
<i>Behind the Screens</i>		THE REPORT FILE	
The Quick Report Displays		AND RUN THE REPORT	16
Form Definition File Names	8	8. ASK FOR THE REPORT TO	
3. SELECT THE FORM		BE PRINTED	17
DEFINITION FILE	9	9. DATE THE REPORT	18
<i>Behind the Screens</i>		<i>Congratulations!</i>	
The Quick Report Displays		You Have Printed Your First	
Field Names	10	ReportStar Report	19
4. SELECT THE FIRST FIELD		A Quick Review	21
NAME	12	How Fast Is Quick?	
5. SELECT THE REMAINING		Try This One	22
FIELD NAMES	13	Using the Quick Report	
		With Your Datafiles	23

What You'll Do in This Chapter

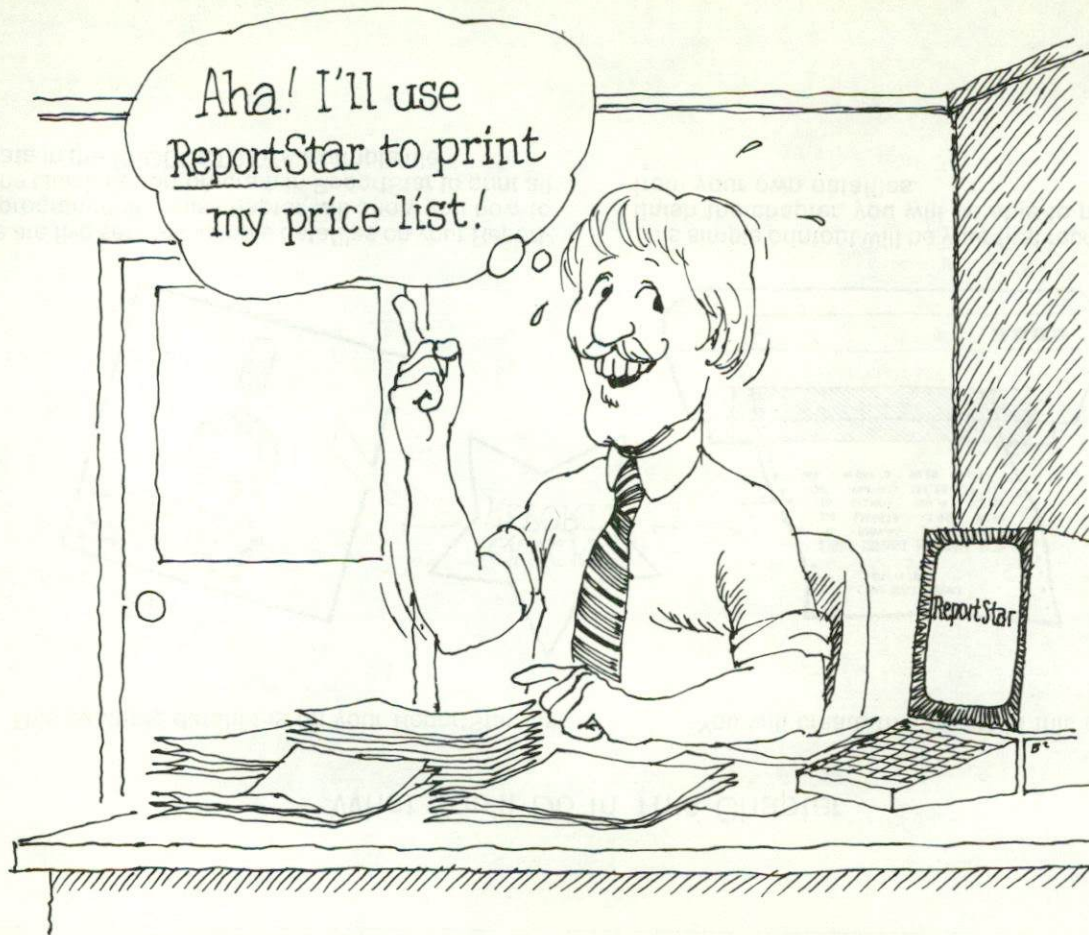
This example datafile is on your ReportStar disk.

You will create this report in this chapter.



There are five sets of example datafiles on your ReportStar program disk. This chapter will show you how to use the Quick Report program in ReportStar to print all the data in the PRODUCTR.DTA example file.

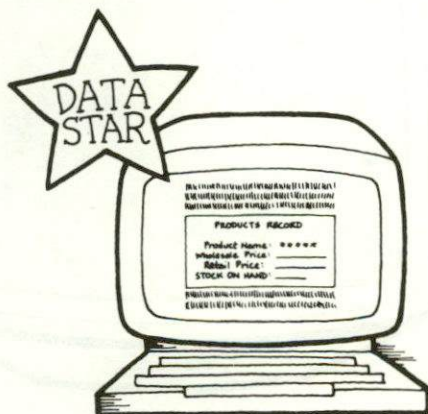
This simple printout will be your first report. When you finish the chapter, you will be able to print out data from your own datafiles.



The Quick Report is always the fastest way to get a list of data from one datafile.

The Example Files You'll Use

PRODUCTR.DEF in DataStar's FormGen program



Your first report will print all the data in the PRODUCTR.DTA example datafile. This file contains product names, quantities in stock, wholesale prices, and retail prices. The example form definition file name is PRODUCTR.DEF. The illustration above shows you what the PRODUCTR.DEF form looks like in DataStar's FormGen program.

PRODUCTR.DTA data displayed on the screen



The PRODUCTR.DEF form was used to enter data into the PRODUCTR.DTA datafile. The illustration above shows what this datafile would look like if you were to use your operating system to display the data on your screen. PRODUCTR.DEF and PRODUCTR.DTA are on your ReportStar distribution disk.

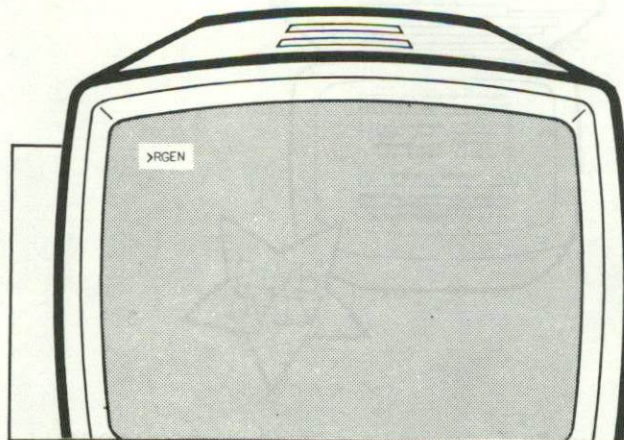
The example files you use in this and the following chapters were created with DataStar 1.4. Illustrations like the ones above will show you what the form definition files and datafiles look like. You must use form definition files created with DataStar to run your reports in ReportStar. DataStar 1.4 adds the extension ".DEF" to form definition file names. If you are using a previous version, you will have to add the .DEF extension to form definition files you create.

1. CALL UP THE QUICK REPORT

Be sure to read the preceding sections, "Before You Begin" and "Starting Up," before you start.

ReportStar includes the three programs RGEN, REDIT, and REPORT. They are listed on your program disk with the extension ".COM" after their names indicating that they are program command files. You will use the program file RGEN.COM to create a Quick Report.

The instructions below show you how to use the Quick Report program. You will simply type the program file name (without the .COM extension) at the prompt from your operating system. ReportStar will respond by displaying the first Quick Report screen.



TYPE RGEN

PRESS 

(No  key? Use **ENTER**. No **ENTER** key?
See the instruction book for your terminal.)

Your computer's memory can now be directed by ReportStar, and you are in control of the ReportStar Quick Report program.

HAVING TROUBLE? If you can't call up the Quick Report, ReportStar has probably not been installed correctly for your computer. "Install" means telling ReportStar what machines it will be using. See Appendix B of the Reference Manual.

2. NAME A FILE FOR THIS REPORT

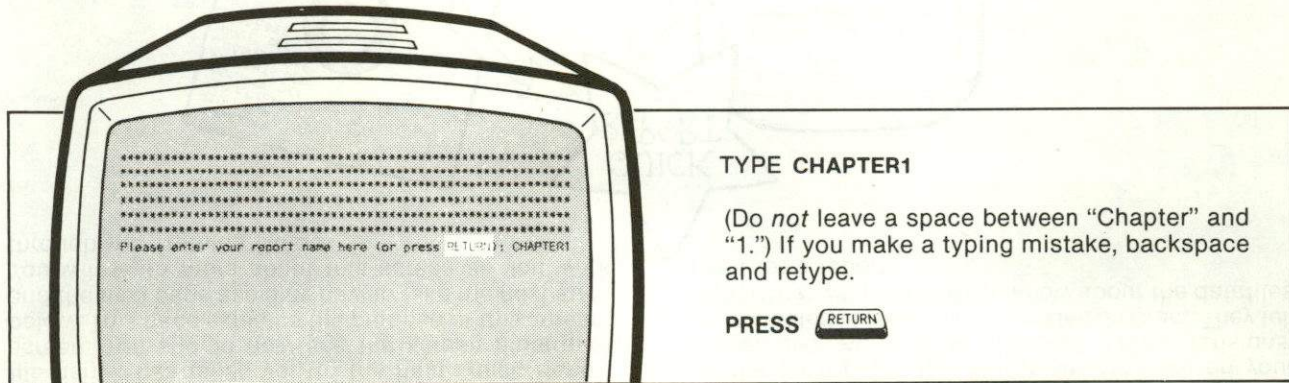
When you call up the Quick Report, you first see a screen with the release number for this version of ReportStar and the name of the terminal you are using. The screen quickly changes to show you the MicroPro license agreement and a message that tells you to "please enter your report name here."

Following the instructions in the box below, you will name a file for the report you will create. This report

specification file will contain all the directions you will give ReportStar.

A report specification file name must have at least one letter or number and not more than eight.

You must enter a *unique* name to continue with the Quick Report. You can decide later whether to save the file with this name.



As soon as you enter the report specification file name, ReportStar takes you to the next screen.

You can use either capital or lower case letters for report names. You cannot use punctuation marks or spaces in a file name. Quick Report and REPORT procedures are explained fully in the Reference Manual; and the numbers you see in the footnotes will help you locate specific procedures.

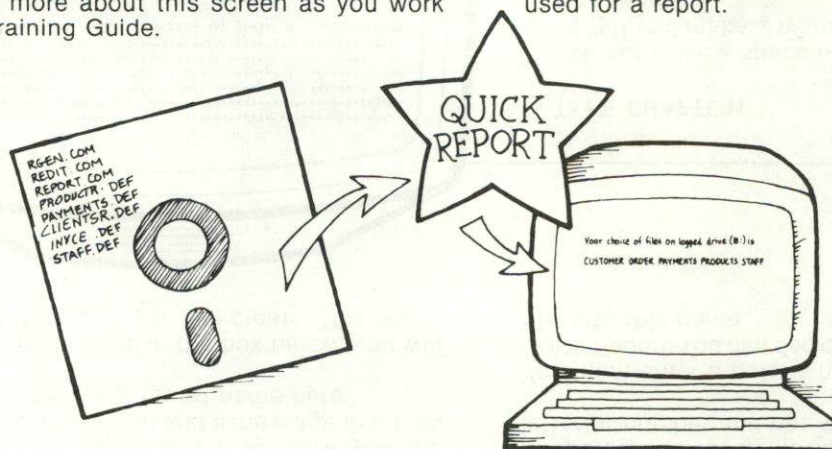
To start over, exit to the operating system. Press the CTRL key and while holding it down, Press C.

Behind the Screens

The Quick Report Displays Form Definition File Names

ReportStar, satisfied that you entered a unique report file name, has taken you to the next Quick Report screen. You should now see the screen illustrated below. This page explains the purpose of this screen, and the next page explains how to take the next step. You will learn more about this screen as you work through the Training Guide.

On this screen, the Quick Report shows you a list of all the form definition file names that are on your logged disk. All of these files (with .DEF extensions) were created in DataStar's FormGen program. They tell ReportStar what it needs to know about the datafiles used for a report.



Notice the Quick Report has recorded your report specification file name, CHAPTER1, on the status line at the top of your screen.

All of the Training Guide example datafiles have form definition files. You can use these example files whether or not you have DataStar on your disk.

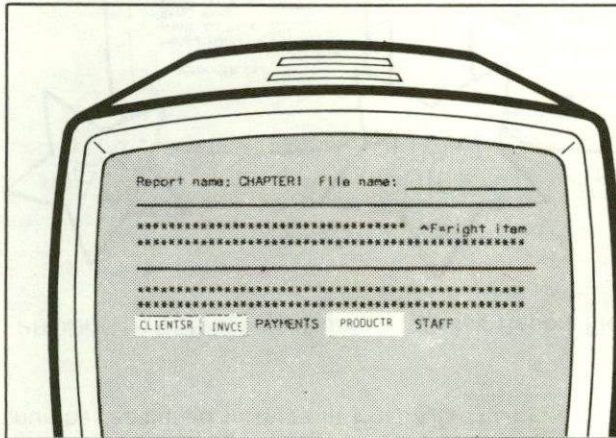
Form definition files tell ReportStar the name and number of each field, the length of each field, the Key fields, and other attributes. For more information about form definition files, see your DataStar manuals.

3. SELECT THE FORM DEFINITION FILE

You will now select the form definition file **PRODUCTR**. The screen message says you can select a file either by typing the name or by moving the cursor. You will select **PRODUCTR** by moving the cursor.

To move the cursor, you will press two keys on your

keyboard. The first key is the control key, labeled **CTRL** on your keyboard and noted as “^” on your screen. The control key is like a shift key on a typewriter. You hold it down while you press the second key. The second key is a letter key that tells the cursor in which direction to move.



1. Move the cursor to the right, one item, to the file name **INVCE**.

PRESS **CTRL**
and while holding it down,
PRESS F quickly.

2. Move the cursor to the right, two items, to **PRODUCTR**.

PRESS **CTRL**
and while holding it down,
PRESS F two times.

3. When you have positioned the cursor on **PRODUCTR**, **PRESS** **RETURN**

As soon as you press **RETURN** to enter the form definition file name **PRODUCTR**, the Quick Report takes you to the next screen.

On the following pages you will see the notation “**CTRL** **F**”, which means, “Press the **CONTROL** key and while holding it down, press **F**.” The notation **RETURN** means, “Press the **RETURN** key.”

HELPFUL HINT: The section of the screen with Control Commands is called a **HELP MENU** or **HELP SCREEN**. It helps you select the command you want.

The abbreviation “**CHAR**” in the **HELP SCREEN** stands for “character.” “^**S** = left **CHAR**” means Press **CTRL** and while holding it down, press **S** to move the cursor left one character.

To start over, exit to the operating system by pressing **CTRL C**.

Behind the Screens

The Quick Report Displays Field Names

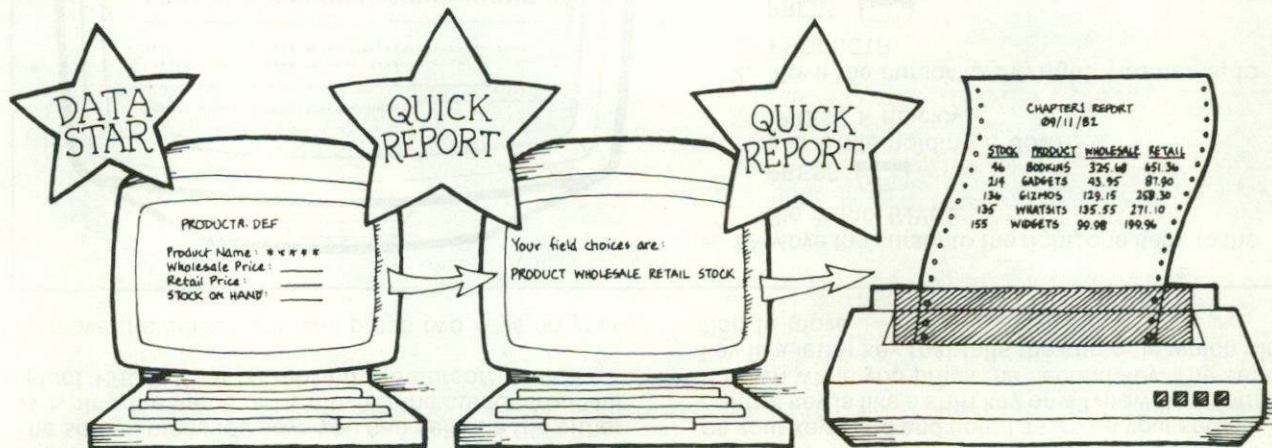
As soon as you entered the form definition file name PRODUCTR, ReportStar copied all the field names from the PRODUCTR.DEF form. This Quick Report screen shows you those field names in order according to the number assigned to them in PRODUCTR.DEF.

You can select the field names in any order, and the next page will show you how. You will select all four fields from PRODUCTR.DEF. Later, ReportStar will print a copy of all the data stored in the PRODUCTR.DTA datafile and use the field names as titles for each column of data on the report.

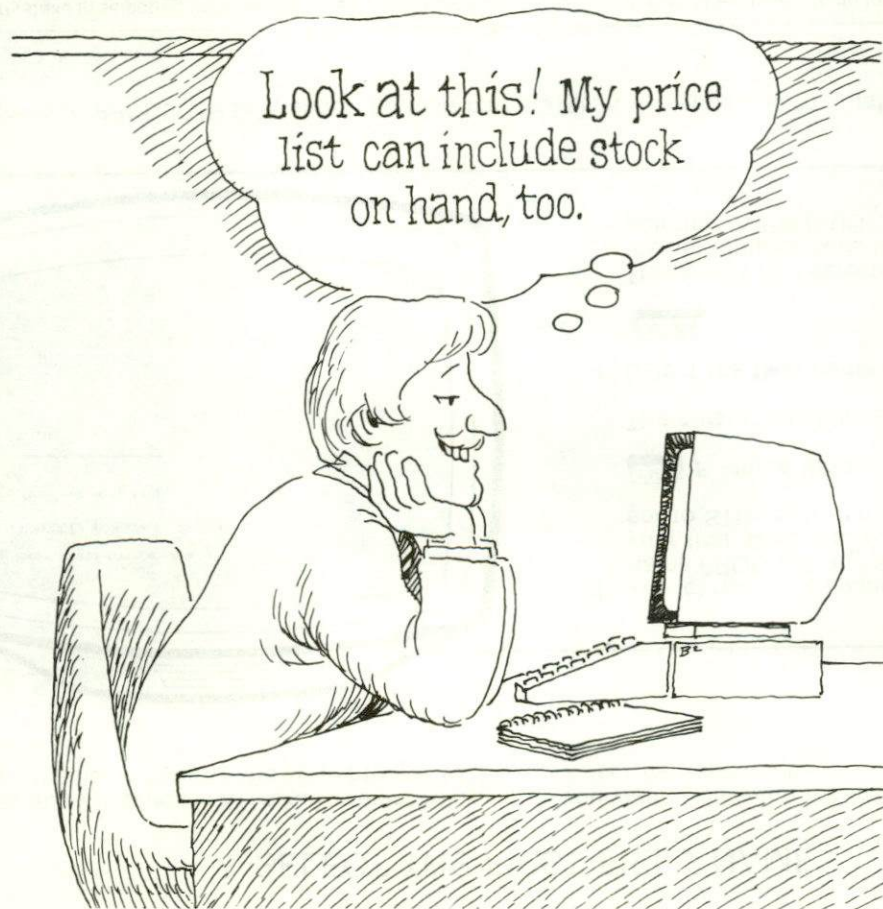
PRODUCTR.DEF in FormGen

Quick Report Field Selection Screen

CHAPTER1 REPORT



HELPFUL HINT: If you do not name your fields in FormGen, this screen will show field numbers instead of field names. DataStar 1.4 allows you to name fields.

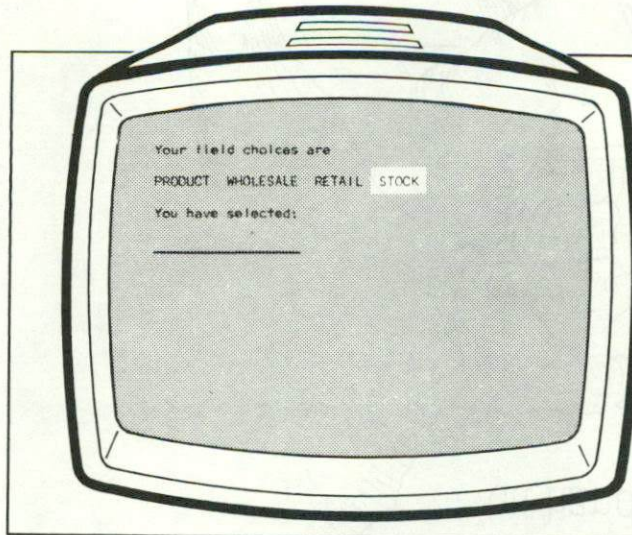


The Quick Report can list the data for any field name you select.

4. SELECT THE FIRST FIELD NAME

The first field you will select is STOCK. To select fields, you can type the name or move the cursor to the field

you want. Following the instructions below, you will select field names by moving the cursor.



1. The cursor is blinking between the field name PRODUCT and the place you will put your first selection. You will move the cursor to STOCK, to the right, three items.

CTRL F three times

The cursor now blinks to STOCK.

2. Select the field name STOCK

RETURN

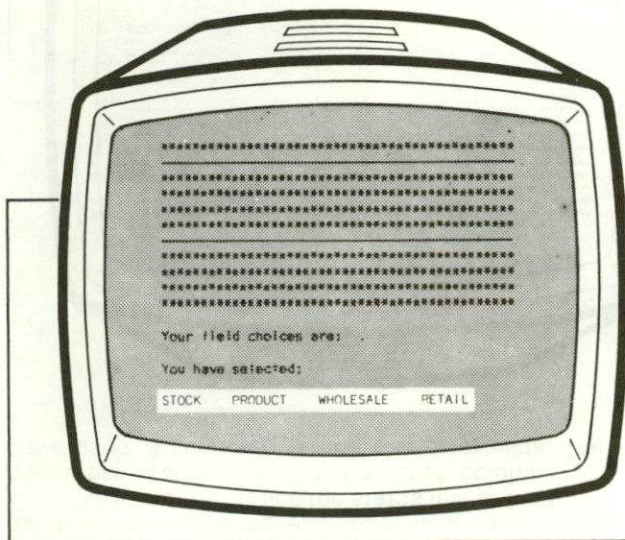
This enters your selection. STOCK moves to the list of fields selected, and the cursor is pointing to PRODUCT.

The data stored in PRODUCTR.DTA under the field name STOCK will appear in the first column when you print your report.

If you make a mistake in selecting field names, here's how to start over: Press CTRL P and then type Y to go to the previous screen. Select the PRODUCTR form definition file just as you did before, and then continue. Don't exit now — you're nearly finished.

5. SELECT THE REMAINING FIELD NAMES

You will select the remaining three field names in the order they appear on the screen.



The cursor is blinking between the field name **PRODUCT** and the space for your next selection.

 three times.

Your screen should now look like the illustration. You have selected all four field names in the PRODUCTR.DEF file to print all the data from PRODUCTR.DTA.

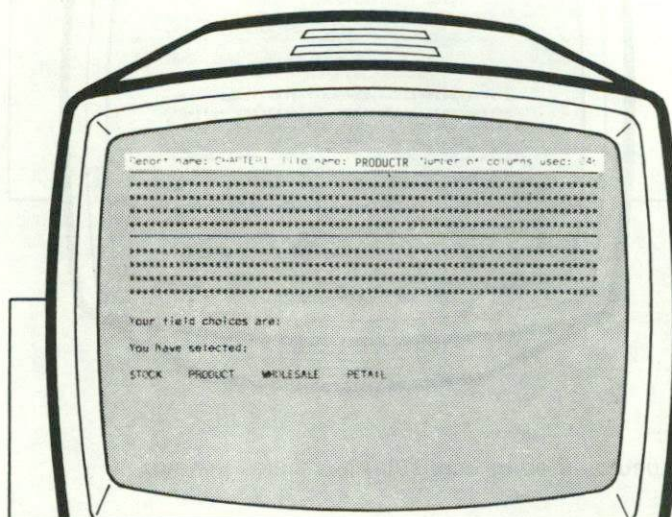
Because you selected STOCK first, the first column of your report will list data from this field – the quantity in stock for each product name. The second column will have PRODUCT names, the third will list WHOLESAL prices, and the last column will list RETAIL prices.

If you make a mistake in selecting field names, here's how to start over: Press CTRL P and then type Y to go to the previous screen. Select the **PRODUCT** form definition file as before, and continue.

6. GO TO THE EXIT SCREEN

You have completed the report specification file for the CHAPTER1 report. Notice the status line at the top of the screen. It shows you the number of "columns" you have used. A "column" is one character wide. The

"Number of columns used" tells you how wide your report will be. Reports on 8½" wide paper can be at least 80 columns wide. This report will be 46 columns wide.

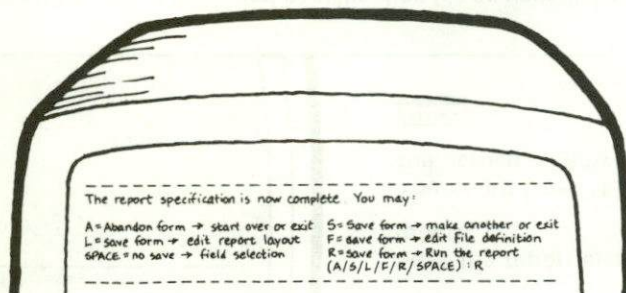


You can now go to the exit screen.



Once you have selected a field name, CTRL C takes you to the Quick Report exit screen instead of to your operating system prompt. This exit command is not on your Help Screen.

Behind the Screens The Exit Screen



The selections on the exit screen allow you to abandon, save, or change the report specification file, to exit, and to run the report. Following the instructions on the next page, you will choose to save the report specification file and run the report.

At the exit screen, you have the following options:

A: Abandons the report file you just created. ReportStar asks if you're sure. Answer yes (Y) and go to "Please enter your report name." Enter a report file name or use CTRL C to leave ReportStar. Answer no (N) and go to the Quick Report Summary Selection Screen. You will look at this screen in the next chapter.

S: Saves this report file. You go to the "Please enter your report name" screen.

L: Takes you into the REDIT part of ReportStar. You will learn about REDIT in Chapter 6. Read Chapter 6 before you select this exit option.

F: Also takes you into REDIT. Read Chapter 6 before selecting this option.

SPACE: Takes you back to the Field Selection Screen in the Quick Report program. Your report file has not yet been saved.

R: Saves the report specification file and Runs the report.

HELPFUL HINT: A (+ N) and SPACE are the only exit choices that allow you to continue creating or changing this Quick Report.

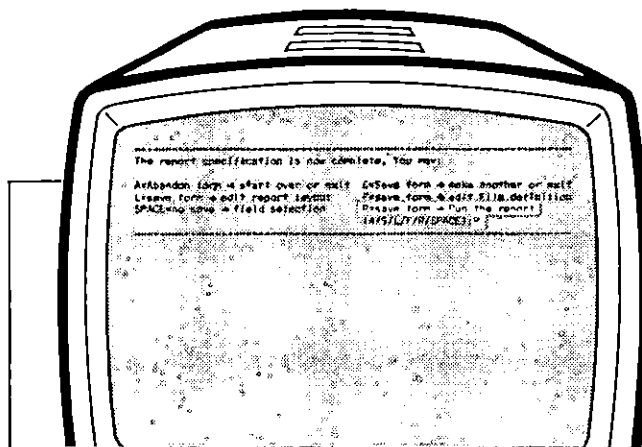
A (+ Y) is the only exit choice that allows you to start over and use the same report specification file name again.

Once a report specification file is saved (S or R) or you enter the REDIT program from this screen (L or F), you can't go back to the Quick Report screens using that report specification file name.

7. SELECT "R" TO SAVE THE REPORT FILE AND RUN THE REPORT

You've given the Quick Report program all the instructions ReportStar needs for a report specification file. The choice you make on this screen tells ReportStar what to do next.

Choosing "R" will tell ReportStar to save the CHAPTER1 report and run the report.



Save the report specification file and run the report.

You could type "R," but since it is already on the screen, simply press RETURN.

RETURN

As soon as you select "R," ReportStar saves the report specification file on your disk under the name CHAPTER1.RPT. The extension ".RPT" stands for report. Then ReportStar calls up the REPORT program and automatically moves you from the Quick Report program to REPORT. REPORT will carry out the instructions in the CHAPTER1.RPT file.

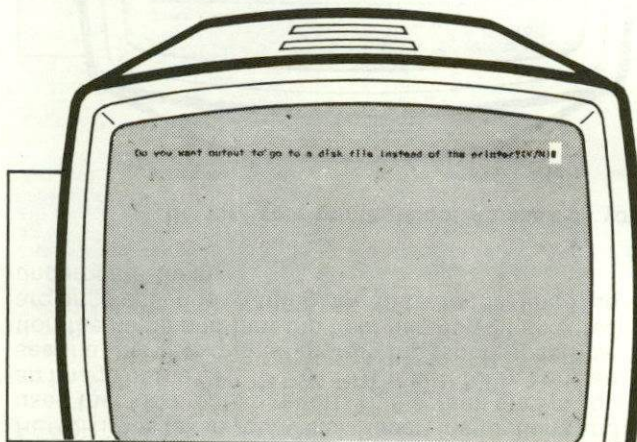
8. ASK FOR THE REPORT TO BE PRINTED

You are now in ReportStar's REPORT program. This program is ready to run your report.

The CHAPTER1.RPT file you have saved has the instructions for running this report. This file instructs REPORT to (1) copy all the data in PRODUCTR.DTA, (2) put the data from each record on lines, one after the other, neatly arranged so all the data stored under the same field name is in the same vertical column,

and (3) use the field names from PRODUCTR.DEF as column titles with STOCK first, PRODUCT second, WHOLESALE third, and RETAIL last.

The screen asks if you want the report to be printed or written to a disk file. Training Guide instructions will always ask for reports to be printed. If you do not have a printer connected to your system, see the footnote below.



Ask for your report to be printed.



This confirms the "N" for No on your screen to say you don't want the report written to a disk file.

If you do not have a printer, type Y to have the report written to a disk file in this chapter and in all following chapters. The file name CHAPTER1.PRN will store the report you run. You can use the text editor for your operating system or WordStar to look at the report on your screen.

You may also see the prompt "Do You Want Standard Error Reporting?" Your installation is different from the outline in Appendix B. See procedure 3050 in the Reference Manual. Simply press RETURN to continue.

9. DATE THE REPORT

REPORT has taken your Quick Report instructions and used them to create a report. This screen shows you an image of the CHAPTER1.RPT report form. You can see that the title of the report is the report specification file name and that the field names you selected are in place and waiting for data to be lined up underneath them.

Typing a date is the last thing you'll do before your report starts printing, so be sure your printer is turned on and ready to go.

Be sure your printer is on! As soon as you type the date, the report will begin printing!

Enter report year:

PD #

CHAPTER1 REPORT
09/11/88

PRODUCT=

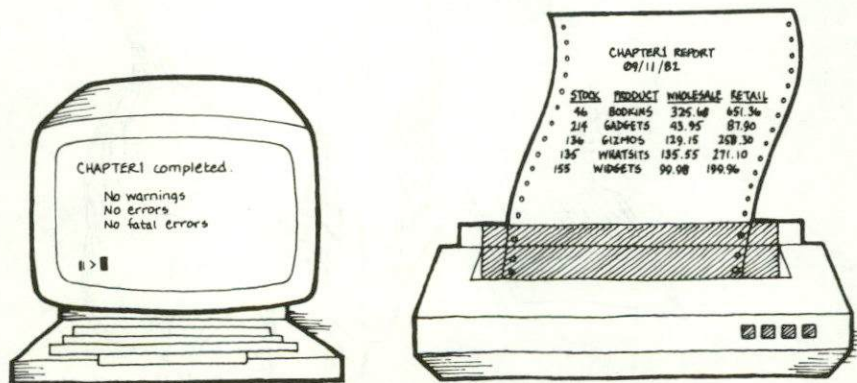
STOCK PRODUCT WHOLESALE RETAIL

1. TYPE 09
(or any other month)
2. TYPE 11
(or any other day)
3. TYPE 82
(or any other year)

If you make a mistake typing the date, use CTRL R to restart.

If you press any key after you type the date, REPORT will ask if you want to stop running the report. Answer "N" to continue printing.

Congratulations!
You Have Printed Your First ReportStar Report



When REPORT has finished, it tells you how many warnings, errors, and fatal errors it found while it was running your report and then returns control of your computer to the operating system.

When you use the Quick Report to make up a file of instructions, you will never get errors or fatal errors in the REPORT program. The Quick Report will stop you before you get to REPORT.

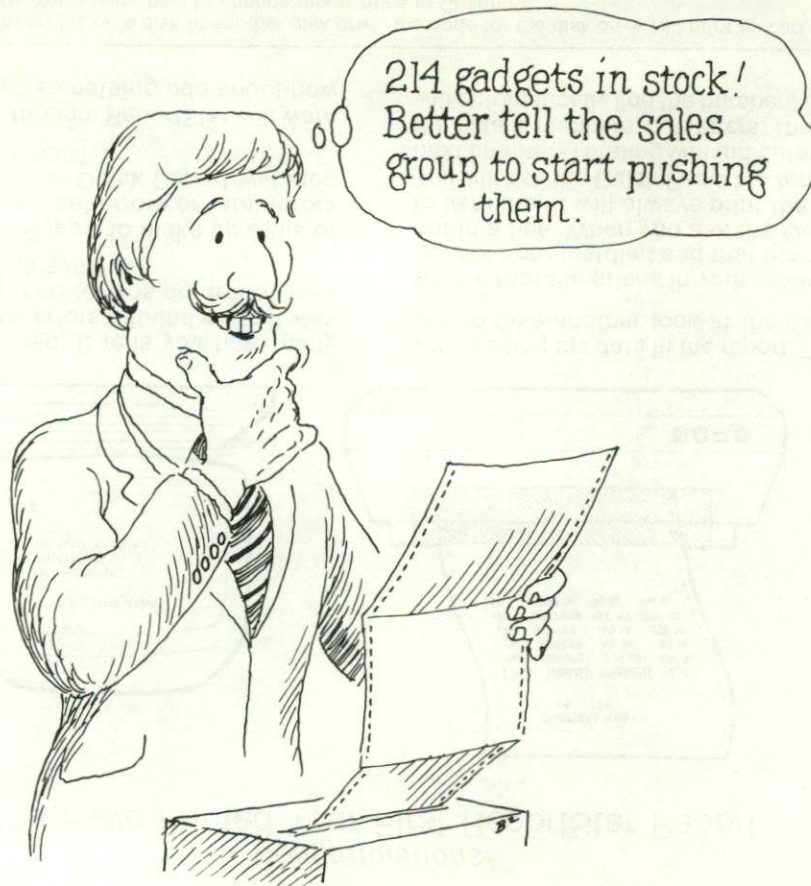
You could get warnings, though. ReportStar will warn you when it thinks there's something odd about how

you're using the data in the report. These warnings tell you to take another look at the data you're using.

Notice that the prices in your report are left justified, but not right justified and that the decimal points are not in a line. When you ask the Quick Report simply to *list* data, it will always print the data left justified. You will ask the Quick Report to *total* some data in the next chapter. Totaling will indicate to ReportStar that the data is numbers, not letters. Then the Quick Report will automatically line the numbers up on the right side.

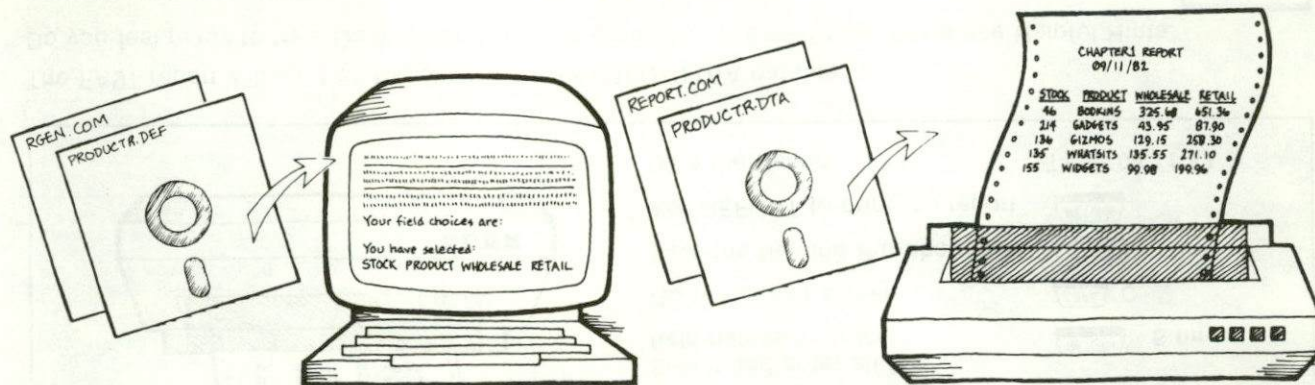
If you put the report specification file on a disk in another disk drive, the code for the disk drive will print as part of the report title (e.g., B:CHAPTER1). You'll learn how to change report titles in Chapter 6.

You will find a quick review of this chapter on page 21 and instructions for another report on page 22.



A Quick Report on the PRODUCTR file prints an inventory/price list in minutes.

A Quick Review



Use the Quick Report program when you want to report on data in one datafile.

The Quick Report file name is RGEN.COM. To enter the Quick Report program, type RGEN at your operating system prompt and press RETURN. Then name your report. This name becomes the title for your report.

The Quick Report looks for form definition files on the logged disk and shows you all the file names with .DEF extensions. When you select a form definition file, the Quick Report shows you all the field names in that .DEF file. Then you select the field names in the order

you want them to appear on the report. The field names become titles for each column of data.

The REPORT program can print the report or write it to a disk file.

Call up RGEN
Name the Report
Select a File
Select Fields
Call up REPORT
Ask for the report to be printed
Add a date
and your report prints.

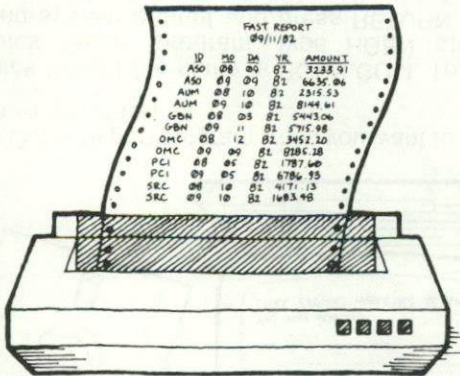
It's easy to print out data from a datafile using the Quick Report. In the next three chapters you will learn how to use the Quick Report to do more than simply list data. That's easy, too.

How Fast Is Quick? Try This One...

Use the instructions below to create another simple Quick Report.

Use the PAYMENTS.DEF form definition file and the PAYMENTS.DTA datafile on your ReportStar program

disk. Name the report file "FAST." There are five fields in PAYMENTS.DEF*. You will select them all in the same order as they appear in the file and on your screen.



Begin at your operating system prompt.

Call up the Quick Report TYPE **RGEN**

Enter your report file name TYPE **FAST**

Select the PAYMENTS.DEF form definition file

Enter the file name **F** twice

Select and enter all five* field names in order 5 times

Go to the exit screen **C**

Save the file and Run the report

Ask REPORT to print the report

Date the Report TYPE **09 11 82**

The FAST report will print all the data in the PAYMENTS.DTA datafile.

Do you feel ready to try a Quick Report on *your* datafiles? The next page has some Helpful Hints.

*DataStar 1.4 allows you to use intermediate fields. The Quick Report field selection screen displays these fields as "(intermediate)." Since no data are stored in the datafile for these fields, you can't select them. See your DataStar manuals for more information on intermediate fields.

Using the Quick Report With *Your* Datafiles

The following hints will help you use the Quick Report to list data from your datafiles. You can go on with the Training Guide now and later use the Quick Report with your data.

HELPFUL HINTS

1. Be sure you have a backup copy of your datafiles when trying anything new.
2. You must have a form definition file for each datafile you want to use. The two files must have the same name (e.g., PRODUCTR.DEF form definition file and PRODUCTR.DTA datafile).
3. If you have the 1.101 version of DataStar/FormGen, your form definition files won't have the ".DEF" extensions ReportStar needs. You will have to rename these files to use them with ReportStar.
4. Watch the total "Number of Columns Used" on the status line. Depending on the character width of your printer and the size of the paper you're using, you will probably want to keep this number below 80. ReportStar will not accept more than 255 columns.

CHAPTER 2

Asking for a Quick Total

CHAPTER CONTENTS

What You'll Do in This Chapter 4

The Example Files You'll Use 5

1. CALL UP THE QUICK REPORT
PROGRAM AND TAKE A SHORTCUT
TO THE FILE SELECTION SCREEN 6

2. SELECT A FORM DEFINITION FILE 7

3. MAKE ROOM FOR THE FIELD NAMES 8

4. SELECT FIELD NAMES IN THE ORDER
YOU WANT THEM TO APPEAR 10

5. GO TO THE SUMMARY SELECTION
SCREEN 11

Behind the Screens

Counting The Records in the Datafile 12

6. SELECT A RECORD COUNT SUMMARY ...13

Behind the Screens

Four More Summaries You Can Choose ...14

7. SELECT FOUR MORE SUMMARIES 15

8. SELECT "R" TO SAVE THE FILE
AND RUN THE REPORT 16

9. ASK FOR THE REPORT TO BE PRINTED,
TYPE A DATE,
AND YOUR REPORT PRINTS 17

Congratulations!

You Have Printed Your First
Quick Summary Report 18

A Quick Review 20

How Fast Is Quick? Try This One 21

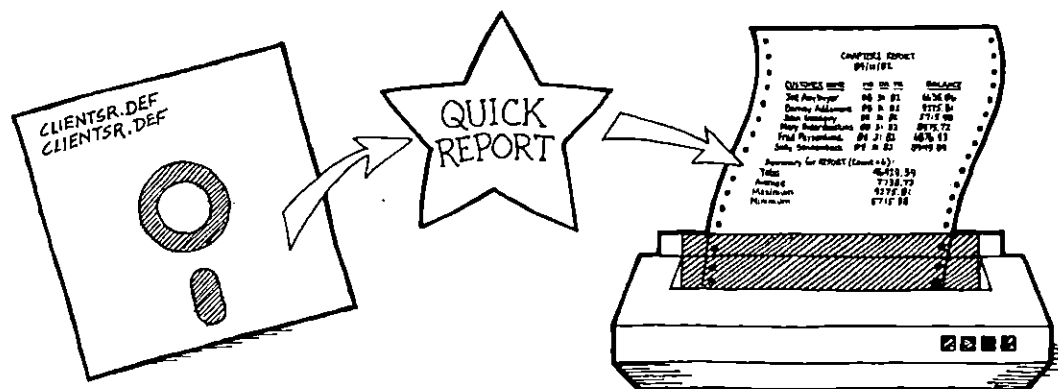
How Fast Is Quick? Try Another One 22

Using the Quick Report and *Your* Datafiles ..23



Use ReportStar's Quick Report to total data in your datafiles quickly.

What You'll Do in This Chapter

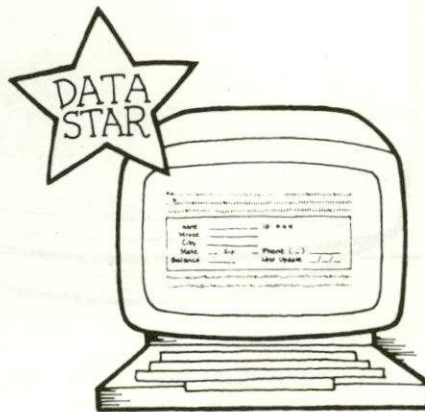


This chapter will show how to use the Quick Report to print some of the data in the CLIENTSR.DTA datafile and to total all the balances due. When you finish the

chapter, you will be able to total data in your datafiles quickly.

The Example Files You'll Use

You will use the CLIENTSR.DTA example datafile in this chapter. This datafile was created using MicroPro's DataStar 1.4 program. You'll also use the form definition file for CLIENTSR.DTA which was created using DataStar's FormGen program. The form definition file name is CLIENTSR.DEF. The illustration below shows what the CLIENTSR.DEF form and CLIENTSR.DTA datafile look like.



CLIENTSR.DEF form definition file
DataStar FormGen

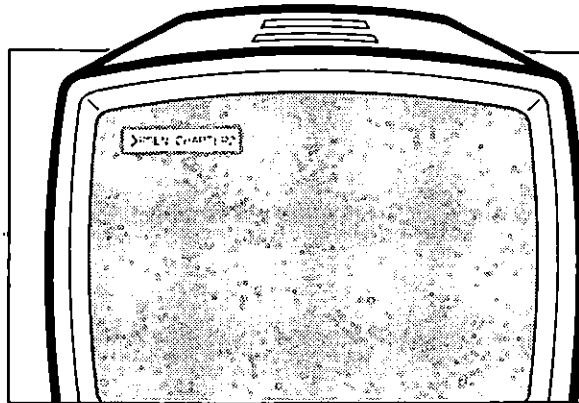


CLIENTSR.DTA datafile

1. CALL UP THE QUICK REPORT PROGRAM AND TAKE A SHORTCUT TO THE FILE SELECTION SCREEN

ReportStar's Quick Report program file name is RGEN.COM. You call up this program by typing RGEN at the operating system prompt. At the same time, you will also name your report CHAPTER2. By calling up the

Quick Report and naming the report specification file in one step, you can skip the "Please enter the name of your report" prompt.



TYPE RGEN CHAPTER2

(Be sure to leave a space between RGEN and CHAPTER2. Do not leave a space between "CHAPTER" and "2.")

RETURN

You will be in the ReportStar Quick Report program at the File Selection Screen.

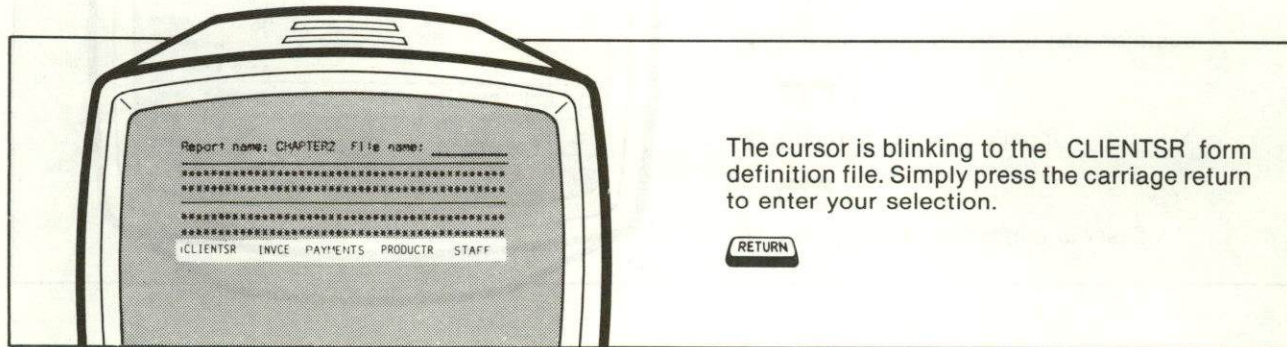
You have named the report specification file you will be creating CHAPTER2, so the title of this report will also be CHAPTER2.

Typing mistake? Backspace and type again.
To start over, press CTRL C.

2. SELECT A FORM DEFINITION FILE

The Quick Report File Selection Screen shows you all the file names with .DEF extensions on your logged disk drive. You will select the CLIENTSR.DEF form

definition file. Notice that the file names are in alphabetical order.



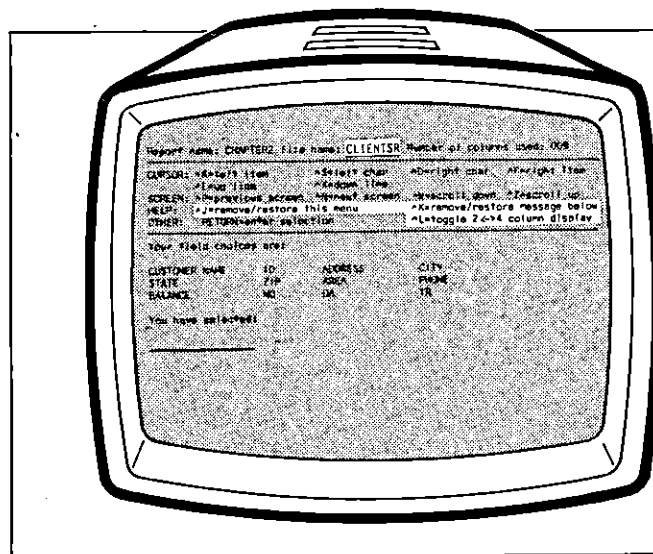
When you enter a selection, the Quick Report automatically takes you to the next screen, the Field Selection Screen.

If you want to exit the Quick Report, press CTRL C. This command will take you to the operating system prompt, and you will have to begin this chapter again.

3. MAKE ROOM FOR THE FIELD NAMES

When you selected the CLIENTSR.DEF definition file, ReportStar sent all the field names in that file to the Quick Report Field Selection Screen. Now you can choose the ones you want.

The Field Selection Screen isn't big enough to show all the field names at once, so the Quick Report program allows you to remove the Help Menu and instruction message temporarily. You can also put the field names into two columns.



1. Remove the instruction message.

CTRL K

2. Remove the Help Menu.

CTRL J

3. Put the field names in two columns.

CTRL L

4. Put the Help Menu back on the screen.

CTRL J

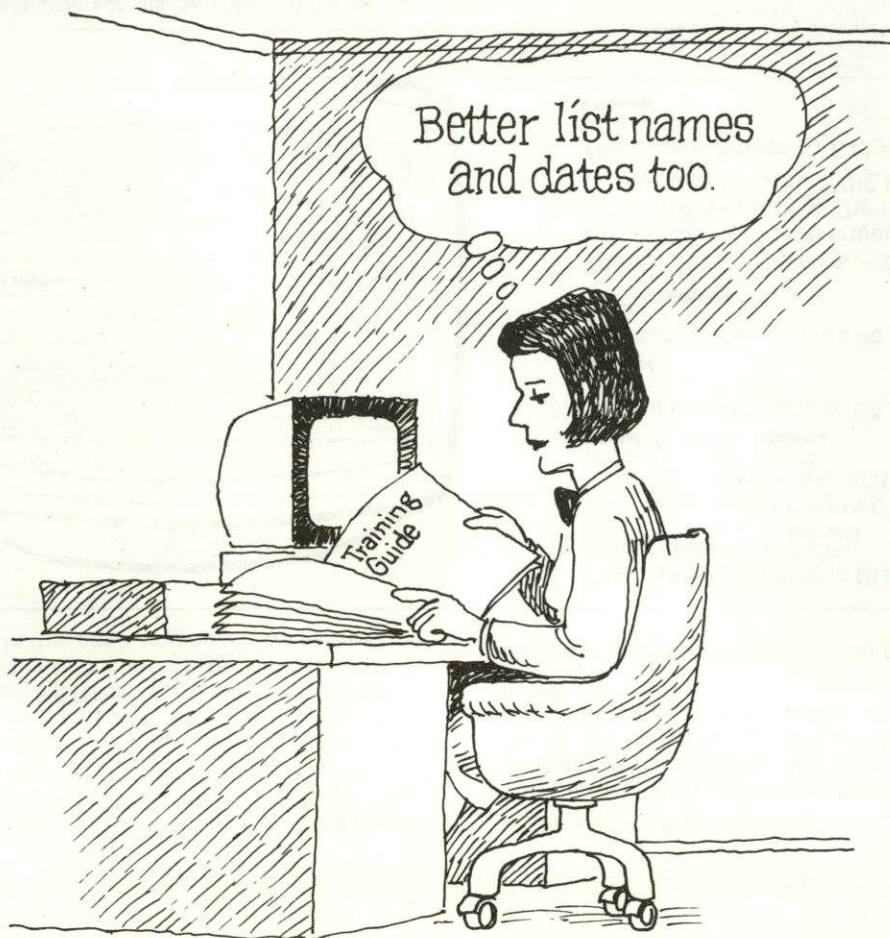
5. Put the field names back in four columns.

CTRL L

CTRL K, CTRL J, and CTRL L are "toggle" Keys: CTRL K takes the instruction message off screen and puts it back on; CTRL J puts the Help Menu on or off; CTRL L places the field names in two columns or back into four columns.

CTRL J is used throughout ReportStar to display Help Menus and messages. It's a good command to remember.





Using ReportStar's Quick Report you can quickly get totals and the *detail* you want, too.

4. SELECT FIELD NAMES IN THE ORDER YOU WANT THEM TO APPEAR

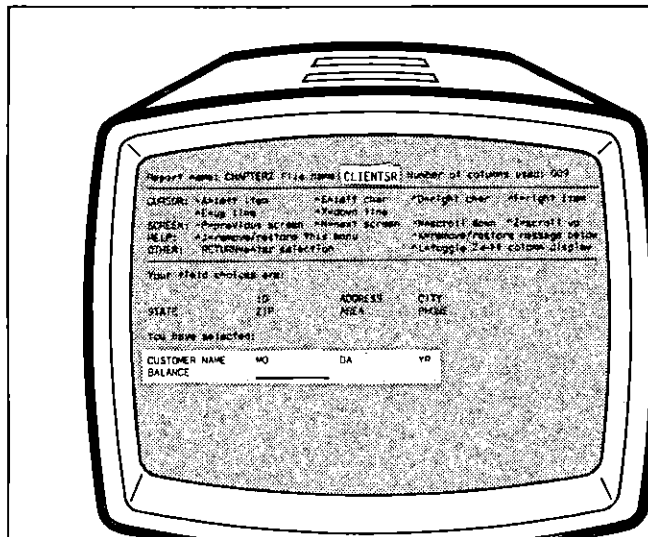
You will tell the QUICK REPORT to print the data stored under five field names: CUSTOMER NAME, MO (for month), DA (for day), YR (for year) and BALANCE.

Following the instructions below, you will make four of these selections by moving the cursor to each field name and pressing RETURN. You'll select the fifth field name by typing enough characters to distinguish it from the others. In this case, you only have to type one

letter and then press RETURN.

The CHAPTER2 report will print the data stored in the field named CUSTOMER NAME in the first column of the report. The data from MO will be in the second column, DA in the third, YR in the fourth, and BALANCE in the last column.

The field names become column titles on the report.



1. The cursor is blinking to CUSTOMER NAME. Select this field. **RETURN**
2. The cursor is blinking to CUST ID. You will move the cursor to MO and select this field. **CTRL X** twice **RETURN**
3. The cursor is blinking to DA. Select this field. **RETURN**
4. The cursor has moved to YR. Select this field. **RETURN**
5. The quickest way to select the last field, BALANCE, is to type enough characters to identify it as unique. The cursor will move to the field for you. TYPE **B**
The cursor moves to BALANCE **RETURN**

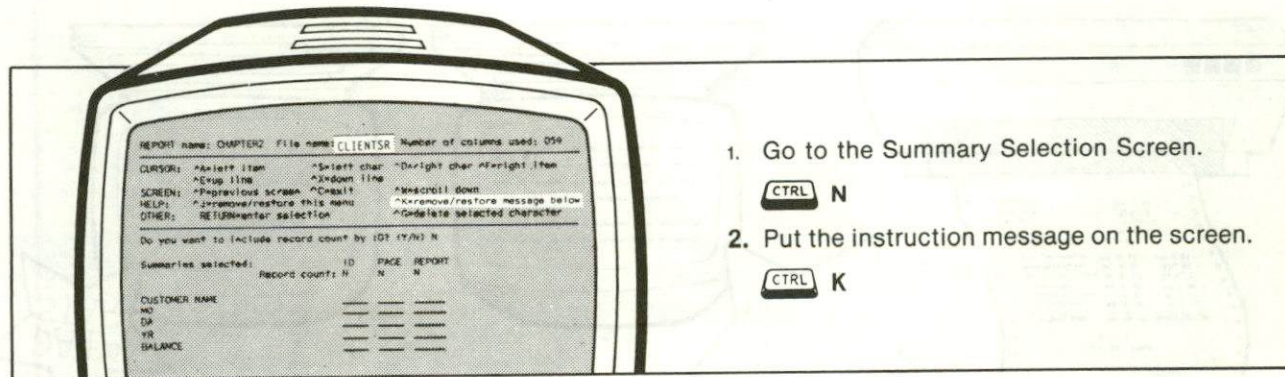
Cursor commands are shown on the Help Menu at the top of your screen.

If you make a mistake, press CTRL P, answer Y, and begin again with file selection.

5. GO TO THE SUMMARY SELECTION SCREEN

When you follow the instructions below, you will go to the Quick Report Summary Selection Screen. Once there, you will "toggle on" the instruction message,

which was temporarily removed from the Field Selection Screen and stayed off when you moved to this screen.



As you look at the Summary Selection Screen, you see the field names you just selected in a column on the left side of the table. You also see the words ID, PAGE, and REPORT across the top of the table.

The Quick Report automatically puts these words on the screen to show you what kinds of summaries you can request.

ID is a field name from the CLIENTSR.DEF form definition file. It is the level 1 Key and the only Key field in CLIENTSR.DEF. In the next chapter, you will learn how to ask for summaries by Key fields. In this chapter, you will not ask for Key field summaries, nor will you ask for PAGE summaries.

You will ask for REPORT summaries, and on the next page you will learn about the first summary.

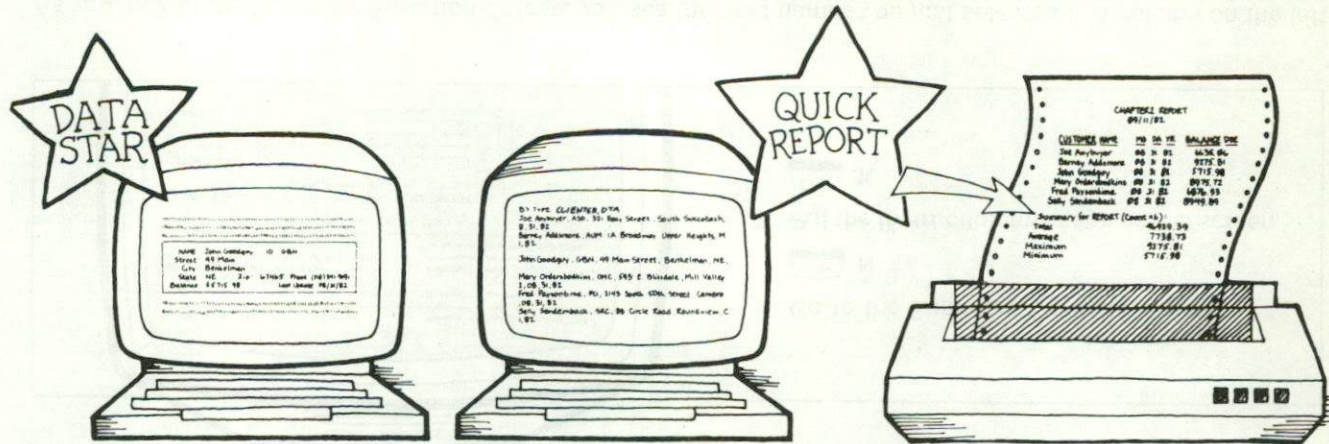
Behind the Screens

Counting the Records in the Datafile

One record entered in DataStar

The CLIENTSR.DTA file would look like this if you displayed it on your screen.

CHAPTER2 REPORT shows a Record Count Summary.

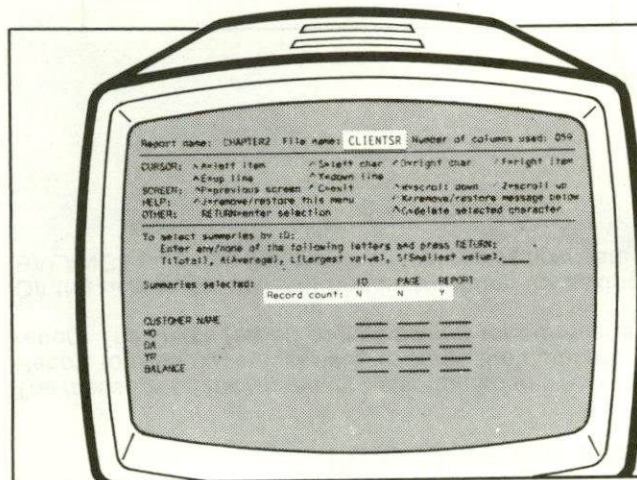


6. SELECT A RECORD COUNT SUMMARY

The Quick Report can count the number of records in an entire datafile and print the total at the end of the report. The Quick Report can also count and print the totals of the number of records on each PAGE and for each ID.

Because this example datafile has only six records, making the CHAPTER2 report only one PAGE long, you don't need summaries by PAGE. And because there is only one record for each ID, you don't need to count the records for IDs, either.

The CHAPTER2 REPORT will have a Record Count Summary by REPORT.



1. Skip the record count by ID. The prompt asks, "Do you want to include record count by ID (Y/N)?" **RETURN**

This leaves the "N" for No on the screen.

2. The prompt changes to ask, "Do you want to include record count by PAGE (Y/N)?" Skip this Record Count Summary. **RETURN**

3. The prompt changes to ask, "Do you want to include record count by REPORT (Y/N)?" You do. **TYPE Y**

This changes the "N" to "Y" for Yes, and the screen message changes to ask if you want more summaries.

The instruction to count the datafile records will automatically be included in the report specification file.

You will learn more about Summary Selection in Chapters 3 and 4.

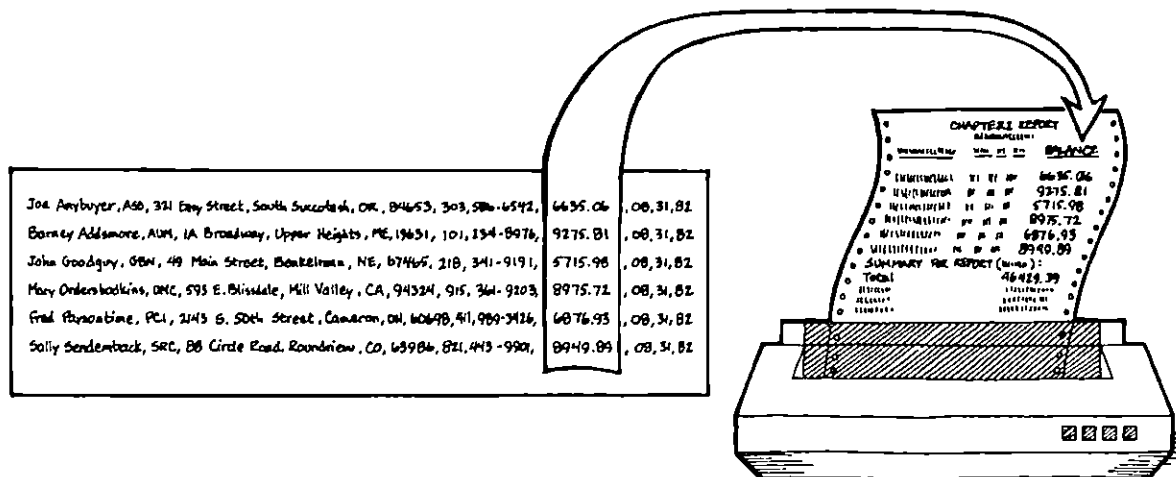
The fastest way to exit now is to press CTRL C, type A (to abandon the file) at the exit screen, then type Y for yes, press CTRL C, and you will be back at your operating system prompt. Your CHAPTER2.RPT file will not be saved.

Behind the Screens

Four More Summaries You Can Choose

The message on the Summary Selection Screen now asks what other summaries you want. You can ask the Quick Report to total numerical data, average the numbers, or find the largest or smallest numbers on a page or in a report. The Quick Report makes asking for summaries easy.

On the next page, you will find instructions for asking the QUICK REPORT to total and average the data in the BALANCE field. The illustration below shows how data from a field in a datafile becomes a total on a Quick Report.

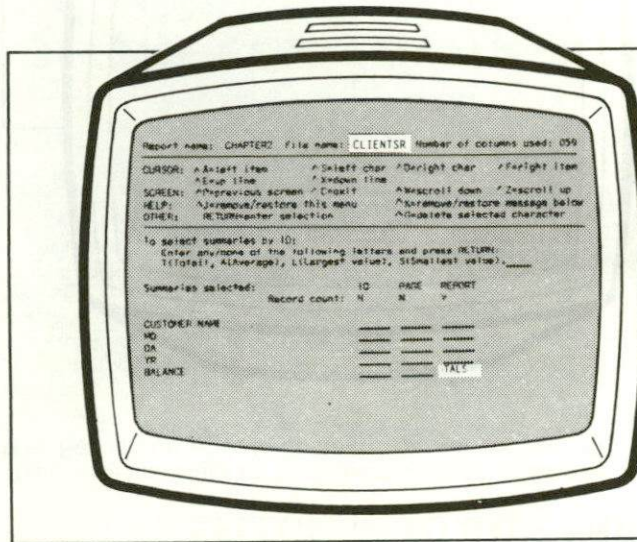


7. SELECT FOUR MORE SUMMARIES

You will ask the Quick Report to add all the data stored under the field name **BALANCE** for the **REPORT**. You will also ask for the Average, Largest, and Smallest **BALANCE**.

You will not ask for summaries by **ID** or **PAGE** for this report.

It's easy to ask for **REPORT** Summaries. You will just move the cursor to the "**BALANCE**" line, type "**T**" for Total, "**A**" for Average, "**L**" for Largest, and "**S**" for Smallest.



1. Move the cursor under the column titled **REPORT**.

CTRL F twice

2. Move the cursor down to the **BALANCE** line.

CTRL X four times

3. Ask for Total, Average, Largest, Smallest **BALANCE**

TYPE T A L S

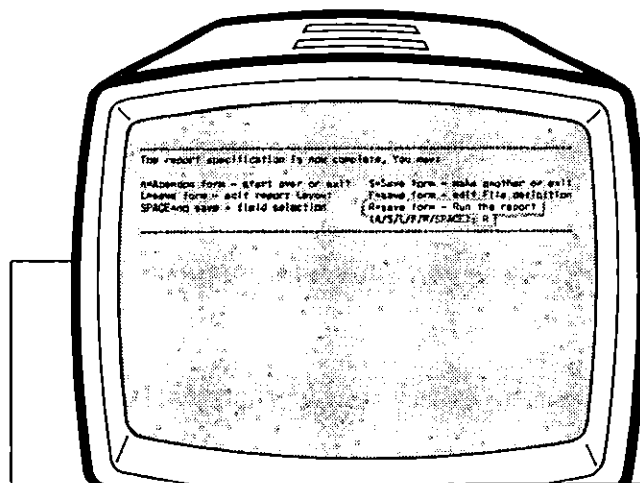
4. You have finished selecting summaries. Go to the Report Completion Screen.

CTRL C

8. SELECT "R" TO SAVE THE FILE AND RUN THE REPORT

The choice you make on the Report Completion Screen tells ReportStar what to do next. You will choose "R"

to save the CHAPTER2.RPT file of instructions and then print the report.



You could type "R," but it is already on screen for you.

RETURN

As soon as you select "R," RGEN responds by taking you out of the Quick Report program and moving you into the REPORT program. When you run a report, ReportStar automatically saves the report specification and puts it on your disk using the report name plus the extension ".RPT." The CHAPTER2.RPT file has all the instructions (i.e., the selections you made in Chapter 2) for creating the CHAPTER2 REPORT.

You may also see the prompt "Do You Want Standard Error Reporting?" Your installation is different from the outline in Appendix B. See procedure 3050 in the Reference Manual.

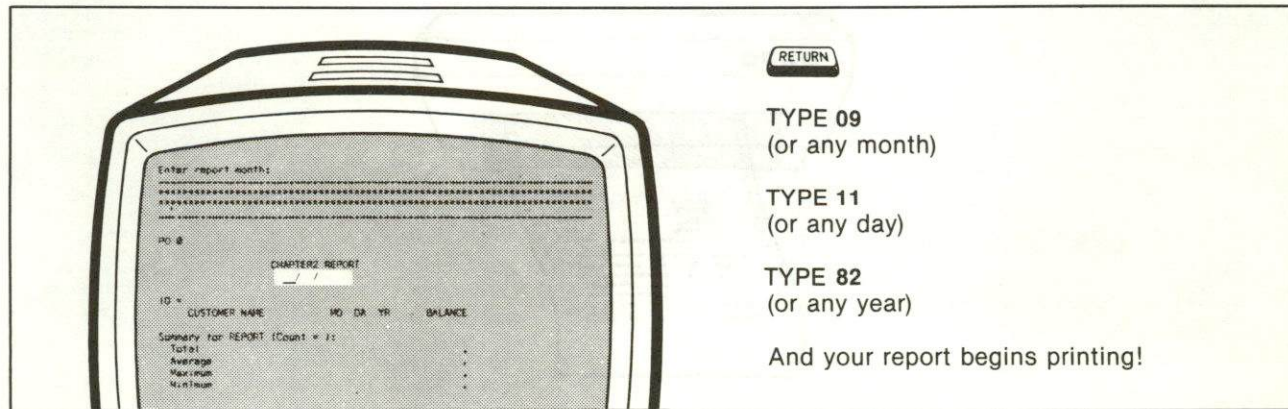
9. ASK FOR THE REPORT TO BE PRINTED, TYPE A DATE, AND YOUR REPORT PRINTS

You will press RETURN to enter the "N" for No in answer to the question, "Do you want output to go to a disk file instead of the printer?" If you don't have a printer, see the footnote below.

Once you tell it where to send the report, the program will show an image of your report form on the screen. You will also see the field name, ID. This field name

is on the report form because it is the Key field in the CLIENTSR .DEF form definition file. You didn't select summaries by ID, so it will not print on the actual report.

Be sure your printer is on and the paper lined up correctly before you type in the date!



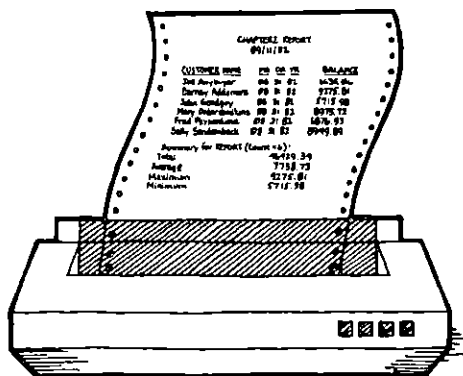
HELPFUL HINTS: If you make a mistake typing in the date and want to start over, press CTRL R.

If you press RETURN or any other key after you type the date, you'll get a message asking if you want to abandon the report. If you see this message, type "N" and REPORT will print your report.

If you don't want the report printed, answer "Y" to the question, "Do you want output to go to a disk file instead of the printer?" REPORT will use the name of the report plus the extension ".PRN" for this file. You can look at the report in WordStar or use your operating system to display it on the screen.

Congratulations!

You Have Printed Your First Quick Summary Report.



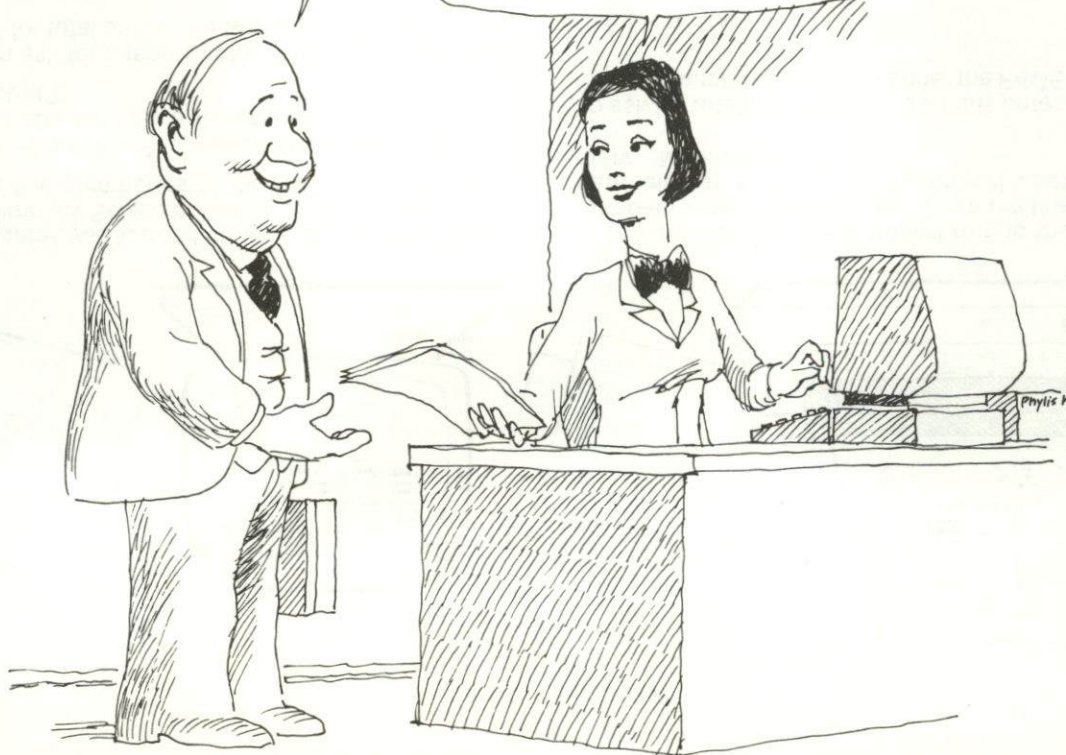
The CHAPTER2 REPORT lists the data stored under the field names CUSTOMER NAME, MO, DA, YR, and BALANCE in the CLIENTSR.DTA datafile. The Quick Report used the report name you entered as the title for the report. It also has copied the field names from the CLIENTSR.DEF form definition file and used them as titles for each column of data. Each line of data is from one record in the datafile.

The CHAPTER2 REPORT also printed the five summaries you selected for the report. First, the Quick Report counted all the records in the datafile (Count = 6) and printed that summary. Then it calculated the summaries of the data in the BALANCE field and printed those summaries in the column titled BALANCE on the report: Total, Average, Largest, Smallest.

The report specification file was automatically saved on your disk under the file name CHAPTER2.RPT when you selected "R" to save the file and run the report.

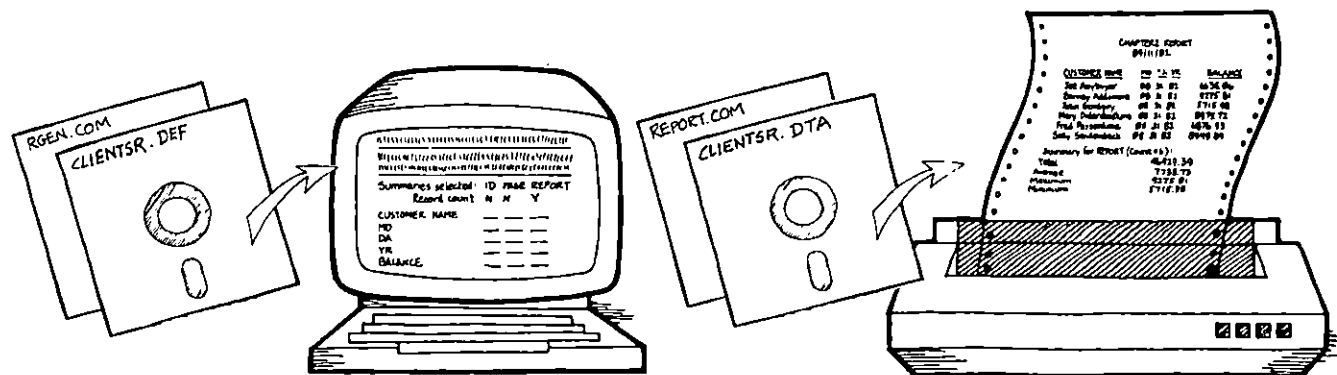
This is even faster than I thought it would be.

Barney owes over ten grand, again. I'll get him on the phone.



A Quick Report can give you five kinds of summaries. Just type a one letter code for each.

A Quick Review



In this chapter, you learned that you can use the Quick Report Summary Selection Screen to ask for any of the following five summaries of the data in a datafile:

1. You can *Count the Records* used in a report by typing "Y" in answer to the question, "Do you want a record count?"
2. You can ask for a report *Total* of numerical data by typing "T" for total on the line with that datafield name.
3. You can ask for an *Average* of the numerical data in any field by typing "A" on the line with that datafield name.
4. You can ask the Quick Report to find the *Largest* number in any field by typing "L" on the line with that datafield name. The Quick Report will label this summary, "Maximum."
5. You can ask the Quick Report to find the *Smallest* number in any field by typing "S" on the line with that datafield name. The Quick Report will label this summary, "Minimum."

To ask for totals by PAGE, you simply enter the codes for the summaries you want under the PAGE selection.

Call up RGEN
 Select a File
 Select Fields
 Select Summaries
 Go to the exit screen
 Call up REPORT
 Ask for the report to be printed
 Type a date . . . and your report prints.

How Fast is Quick? Try This One...

Follow the instructions below to create a second Quick Summary Report. This report will use the PAYMENTS.DEF example form definition and the

PAYMENTS.DTA datafile. You will name the report "FASTSUM," select all the fields, and ask for a total of the AMOUNT field for the REPORT.

At the operating system prompt

Select the PAYMENTS form definition file

Select all fields in the same order as they appear on the Field Selection Screen

Go to the Summary Selection Screen

At the Summary Selection Screen select a Record Count for the report

Ask for a report total of the data in the AMOUNT field

Go to the exit screen

Save the file and Run the Report

Send your report to the printer

Date the report

TYPE RGEN FASTSUM **RETURN**

CTRL F twice **RETURN**

RETURN five times

CTRL N

RETURN two times

TYPE Y

CTRL X four times

CTRL F twice

TYPE T

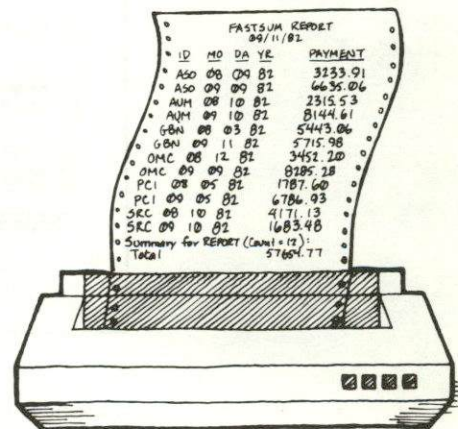
CTRL C

TYPE R

RETURN

TYPE 09 11 82

and your report prints a total of the data in the AMOUNT field.



HELPFUL HINT: To "Press CTRL X four times," hold down the CTRL key while pressing X four times.

It's easy to get totals of your data using the Quick Report. In the next chapter, you'll learn how to ask for the AMOUNT field to be totaled for each customer.

How Fast is Quick? Try Another One...

This time you're on your own. See if you can produce the report illustrated below and give the accountant her phone list.

PHONE REPORT 09/11/81			
<u>CUSTOMER NAME</u>	<u>AREA</u>	<u>PHONE</u>	<u>BALANCE</u>
Joe Anybuyer	303	586-6542	6635.06
Barney Addsmore	101	234-8976	9275.81
John Goodguy	218	341-9191	5715.98
Mary Ordersbookins	915	361-9203	8975.72
Fred Paysonetime	411	411-3426	6876.93
Sally Sendemback	821	443-9901	8949.89
Summary for REPORT:			
Total			46429.39

Using the Quick Report and *Your* Datafiles

SOME HELPFUL HINTS:

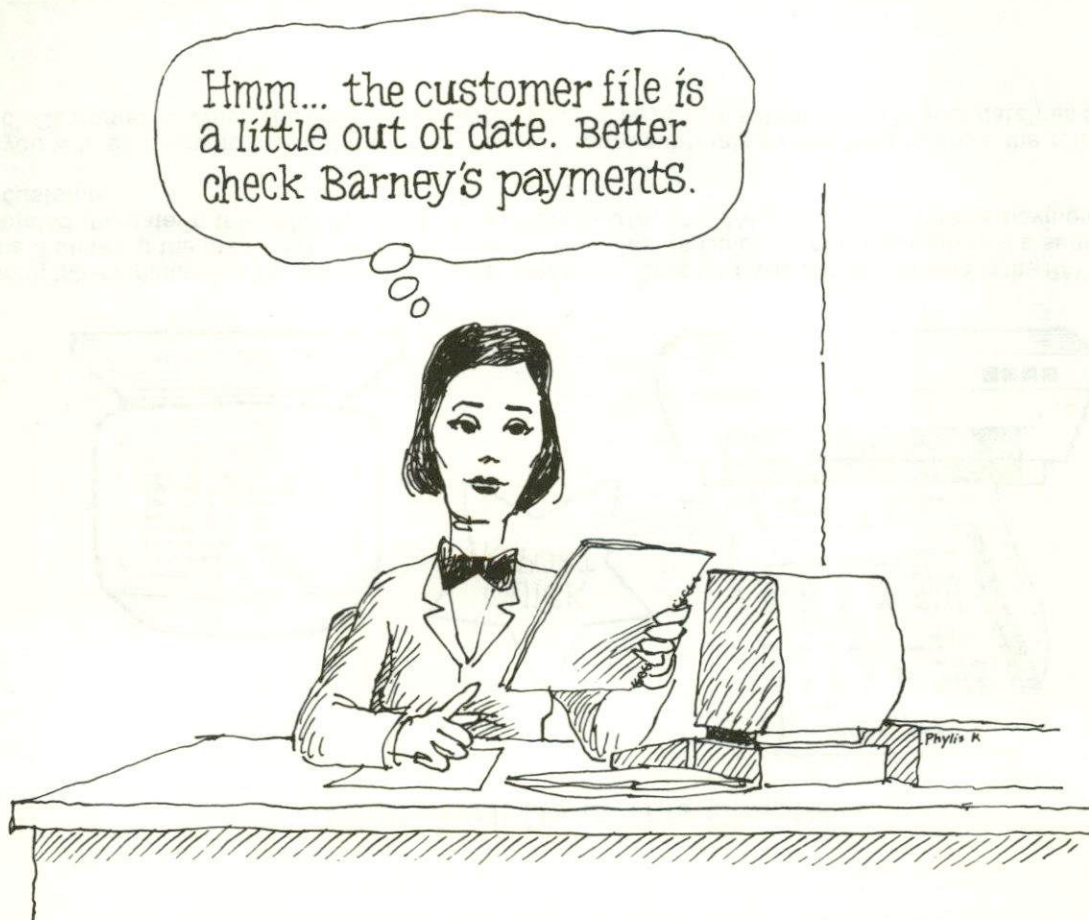
1. Always make a back-up copy of your data when trying something new. Although it's unlikely that running a Quick Report could hurt your data, it's good practice to store an extra copy.
2. For now, just ask for totals by PAGE and REPORT. You will learn about asking for summaries by Key fields in the next chapter.
3. Use CTRL L at the File Selection Screen if you want to change logged drives if your files are not on the disk with the ReportStar program.
4. Watch the total "Number of Columns Used" on the Field Selection Screen. 80 columns is standard for 8½" × 11" paper; 110 for 11" × 14" paper. The Quick Report won't let you use more than 255 columns.
5. If you have several Key fields in your form definition file, the PAGE and REPORT columns may not be displayed on the screen until you move the cursor to the right.
6. The Quick Report does not print special characters to distinguish negative numbers. In Chapter 8, you will learn how to add a minus sign or brackets to negative numbers.
7. The Reference Manual has information on RGEN and REPORT error messages. After you have studied the following chapters, you will find it easier to use the Quick Report with your data.

CHAPTER 3

Printing a Key Subtotal

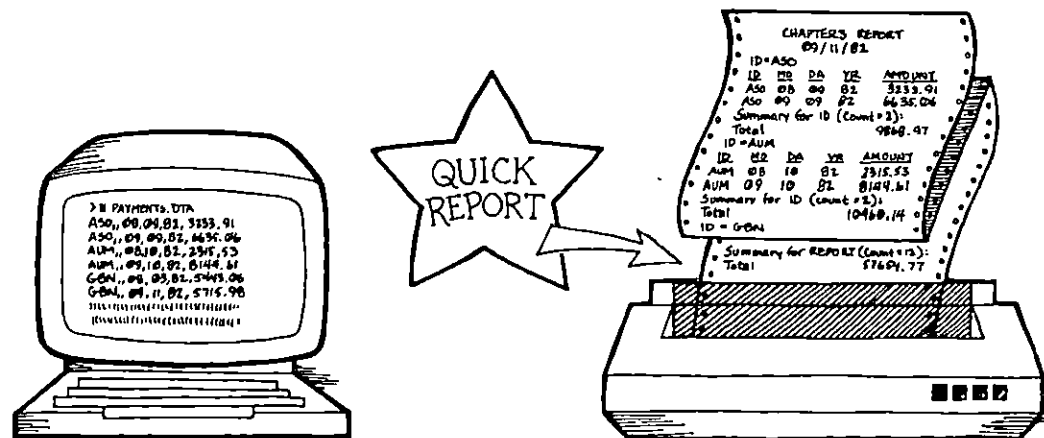
CHAPTER CONTENTS

What You'll Do in This Chapter	4	4. SELECT RECORD COUNT SUMMARIES ...	12
The Example Files You'll Use	5	<i>Behind the Screens</i>	
1. CALL UP THE QUICK REPORT AND GO TO THE FILE SELECTION SCREEN	6	Subtotals by Key	13
2. SELECT A FORM DEFINITION FILE.....	7	5. TOTAL THE AMOUNT FOR THE REPORT AND PRINT A SUBTOTAL FOR EACH CUSTOMER.....	14
3. SELECT FIELD NAMES IN THE ORDER YOU WANT THEM TO APPEAR	8	6. SELECT "R" TO SAVE THE FILE AND RUN THE REPORT, ASK FOR THE REPORT TO BE PRINTED, DATE THE REPORT ...AND YOUR REPORT PRINTS	15
<i>Behind the Screens</i>		A Quick Review	16
Presenting: The Key Field	9	How Fast Is Quick? Try This One.....	18
<i>Behind the Screens</i>		<i>Some Helpful Hints</i>	20
Sorting Out the Key Structure	10		
<i>Behind the Screens</i>			
Counting Records by Key.....	11		



The Quick Report can give you fast subtotals of your data, too.

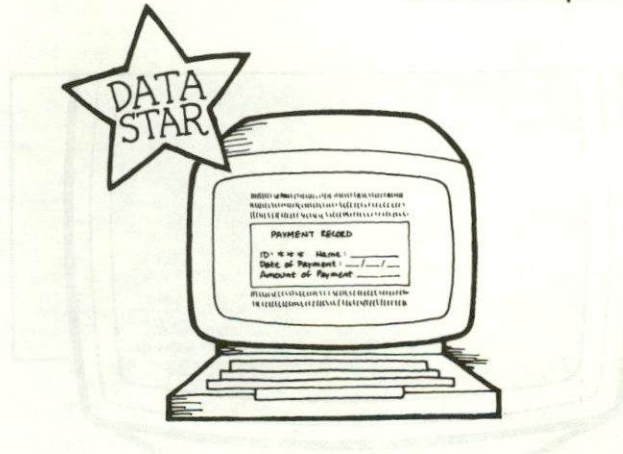
What You'll Do in This Chapter



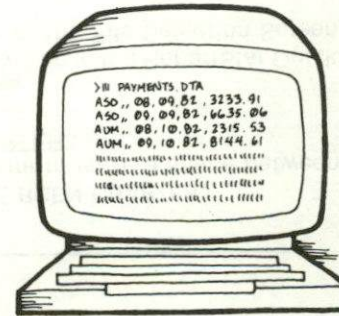
Following the instructions in the "How Fast is Quick" section of Chapter 1, you printed the data in the PAYMENTS.DTA datafile. Following the instructions in the Chapter 2 "How Fast is Quick" section, you printed a summary report that totaled the data in the AMOUNT field in PAYMENTS.DTA. The AMOUNT field contains payments made by each customer.

Now, you will learn how to instruct the Quick Report to print subtotals by Key field to show the total payments for each Customer ID. When you finish this chapter, you will be able to subtotal data in your datafiles by Key field.

The Example Files You'll Use



The PAYMENTS.DEF form definition file was created with DataStar's FORMGEN version 1.4.

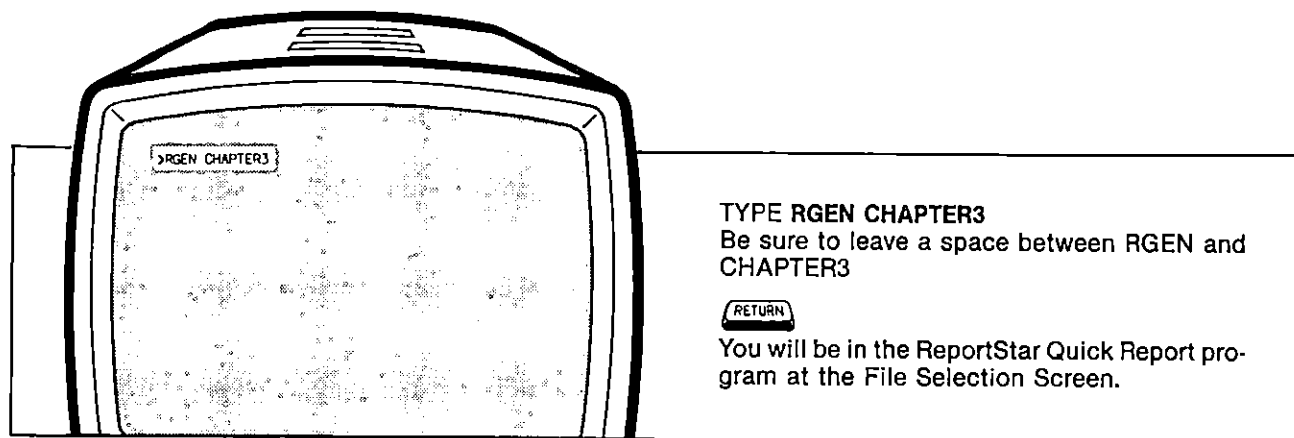


The PAYMENTS.DTA datafile was created with DataStar 1.4.

In this chapter, you will use the PAYMENTS.DTA example datafile, created with MicroPro's DataStar 1.4 program and the PAYMENTS.DEF example file, created with DataStar's FormGen program. These example files are supplied on your ReportStar distribution disk.

1.CALL UP THE QUICK REPORT AND GO TO THE FILE SELECTION SCREEN

You will name this report CHAPTER3. If you call up RGEN and name your report in one step, you can skip the screen that asks you to enter your report name.

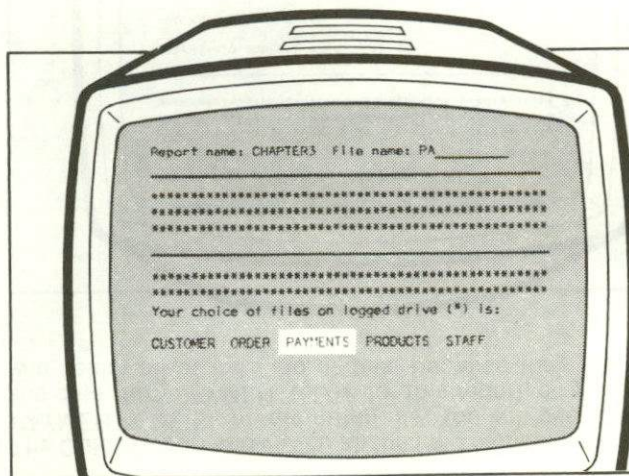


If you are using a dual drive system, you can tell ReportStar to put the report specification file on a disk other than the one you're logged onto by typing the code for that disk drive before the title (e.g., B:CHAPTER3).

2. SELECT A FORM DEFINITION FILE

The PAYMENTS.DEF form definition file describes the data fields in the PAYMENTS.DTA file. ReportStar looks at the form definition file to see which field has been designated as the Key field, how each field is

numbered and named, and how long each field can be. ReportStar must have this information for each datafile used in a report. (Only file names with the .DEF extensions are displayed on the File Selection Screen.)



1. Select PAYMENTS by typing enough characters to distinguish its name from any other.

TYPE PA

The cursor moves to PAYMENTS

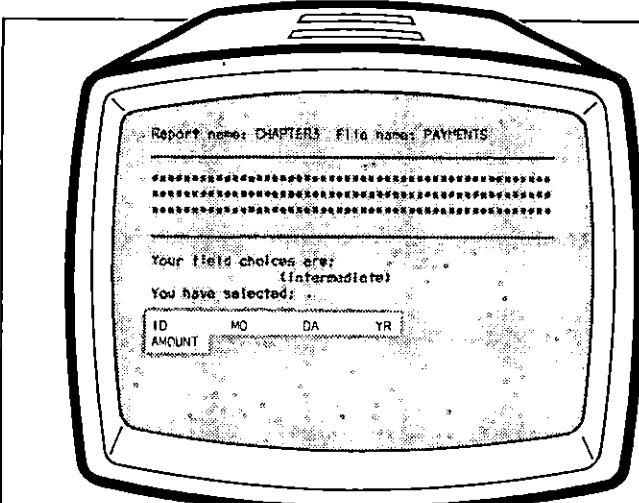
2. 

Pressing RETURN enters the selection and takes you to the Quick Report Field Selection Screen.

3. SELECT FIELD NAMES IN THE ORDER YOU WANT THEM TO APPEAR

The Quick Report shows you all the field names in the PAYMENTS.DEF form definition file. You will use all the data from PAYMENTS.DTA for this report, so you will select all of the field names. Because they are

already in the order you want, the selection can be made quickly. First, though, remove the screen message so you can see the choices and your selection.



1. Remove the screen message.
CTRL K

2. The cursor is blinking to the first field, ID. Since you want all the fields in order, you can simply press RETURN as the cursor blinks to each in turn.
RETURN 5 times.

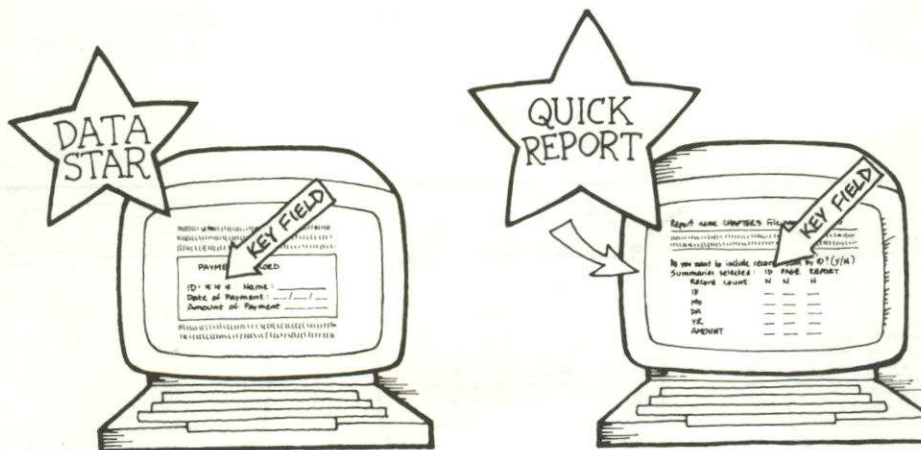
3. When you have selected all five fields, you are ready to ask for summaries. First, restore the message.
CTRL K

4. Then go the next screen.
CTRL N

Fields defined as "intermediate" in DataStar are shown on RGEN's Field Selection Screen as "(intermediate)." Since no data is stored in these fields, you cannot select them. For more information about intermediate fields, see your DataStar manuals.

If you want to exit, Press CTRL P, Y, CTRL C.

Behind the Screens Presenting: The Key Field

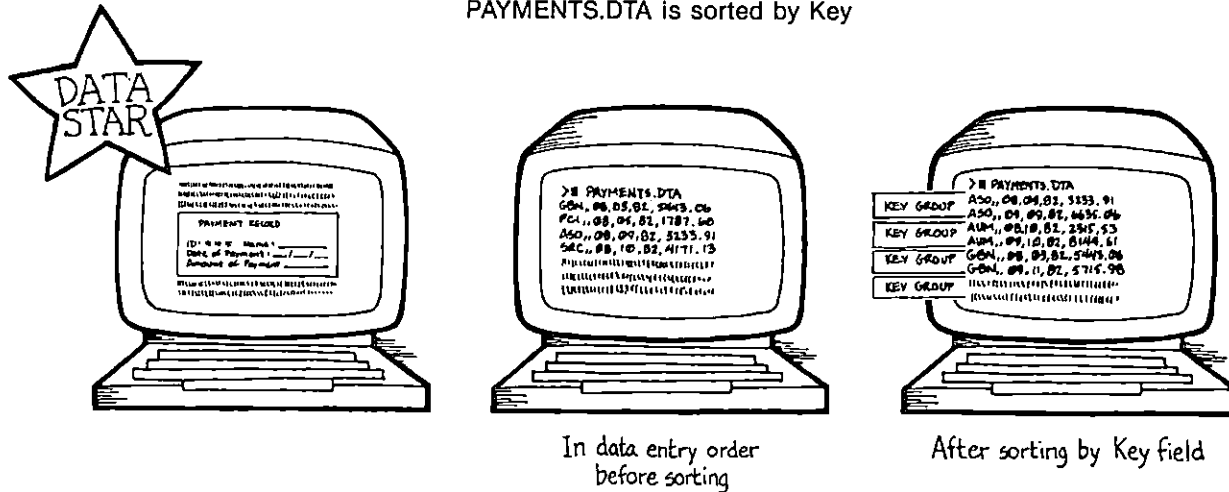


When you use the Quick Report, you can ask for subtotals by the Key field, ID, as well as by PAGE and REPORT. The Quick Report shows you which field in the form definition file is the Key field.

Behind the Screens

Sorting Out the Key Structure

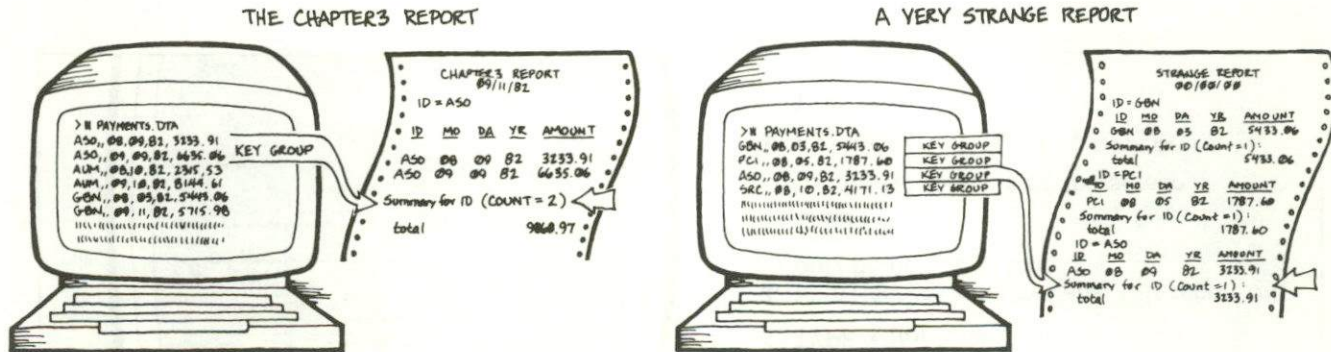
PAYMENTS.DTA is sorted by Key



Each of your datafiles has at least one field designated as the Key by the form definition file. The field named ID is the Key in PAYMENTS.DEF. This field, the first field in every record, contains a three-letter code, identifying each customer. When records containing the same data in the Key field(s) are grouped together in the file and arranged in alphabetical (or numerical) order, the file has been sorted by Key. PAYMENTS.DTA is sorted by Key.

HELPFUL HINT: You will get predictable results when you use datafiles sorted by Key for your Quick Reports. Use DataStar's File Maintenance or FormSort to sort by Key.

Behind the Screens Counting Records by Key



The PAYMENTS.DTA example datafile on your distribution disk has been sorted by Key.

PAYMENTS.DTA datafile looks like this before being sorted by Key. The data appears in the order in which it was entered. Asking for a Record Count Summary by Key on a datafile *not* sorted by Key produces a very strange report.

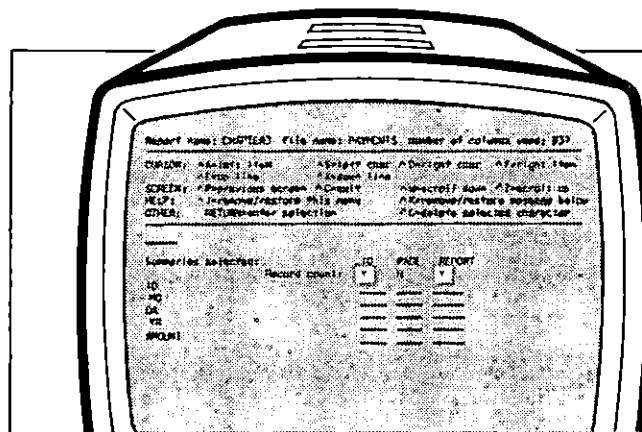
When you ask for a summary by Key field in the Quick Report, you tell ReportStar to use that Key field as a control break. When ReportStar encounters a control break, it stops counting (or adding) data each time the Key changes. Then it prints the subtotal for the Key group, goes on to the next Key group, and begins the process again.

What happens when you ask for a Record Count Summary by Key? ReportStar will stop each time a Key group is about to change, count the number of records in that group, print the total, and then go on to the next group. The first illustration shows the report you will produce in this chapter using PAYMENTS.DTA, which has been sorted by Key. The second illustration shows the report that would be produced if PAYMENTS.DTA had been left in data entry order. When you ask for summaries by Key, and the Keys are not grouped together, you get a very strange report.

4. SELECT RECORD COUNT SUMMARIES

You will ask the Quick Report to count the records for the Key field, ID, and for the entire REPORT. You ask for these summaries by simply typing "Y" for yes. ReportStar will include these instructions in the CHAPTER3.RPT file when you save the file.

As ReportStar moves through the PAYMENTS.DTA datafile, it will stop to print the total number of records in each Key group it encounters along the way. Then it will print the total number of records used in the REPORT.



1. Ask for Record Count by ID.

TYPE Y (for Yes)

2. Skip Record Count by Page. This report will only be one page long.

CTRL F

"N" for No remains on the screen.

3. Ask for Record Count by REPORT.

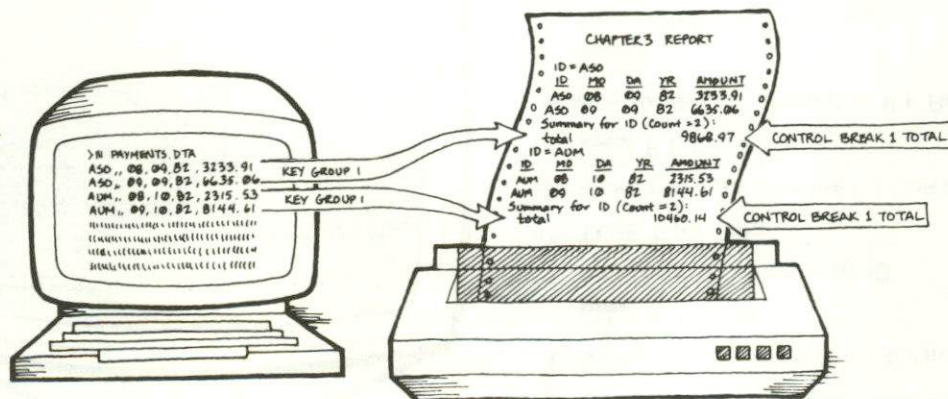
TYPE Y

The Quick Report remembers the last summary selection you made and enters it for you when you press RETURN. You can use CTRL F to skip over items and leave the selections as they first appeared on the screen.

Typing mistake? CTRL G removes the character under the cursor. CTRL S moves the cursor to the left one character at a time; CTRL D moves the cursor to the right one character at a time.

REFERENCE
MANUAL
1300

Behind the Screens Subtotals by Key



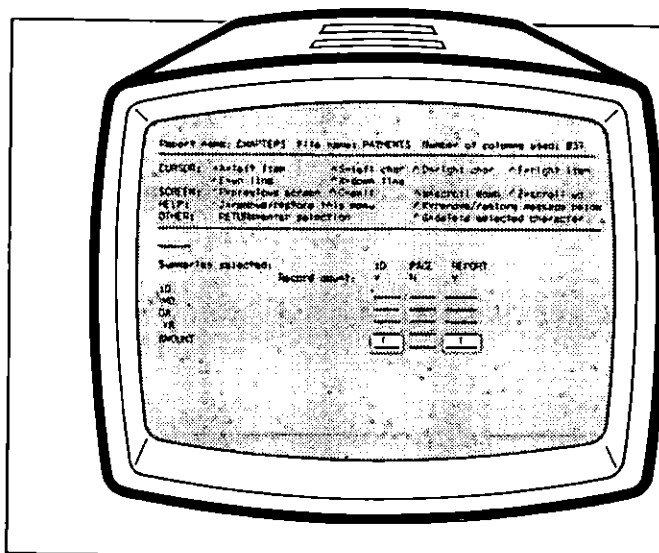
The Quick Report can subtotal numerical data in any of the selected fields. You simply ask for a total of the field(s) by the Key field. ReportStar will use the Key field as a control break. Each time the Key group changes, ReportStar will print the total of the data in the field(s) you selected, then go on to the next Key group and do the same thing again.

Following the instructions on the next page, you will ask the Quick Report to total the AMOUNT field by the Key field, ID. Each time the Key field is about to change from one ID (e.g., ASO) to the next one in the file (e.g., AUM), ReportStar will stop, add up all the data in the AMOUNT field for all the records in the current Key group, print the Total, then go on to the next Key group and do the same thing again.

5. TOTAL THE AMOUNT FOR THE REPORT AND PRINT A SUBTOTAL FOR EACH CUSTOMER

You will ask the Quick Report to total all the payments in the AMOUNT field and print a subtotal of all the payments made by each customer. You ask for these totals by typing "T" for total on the AMOUNT line in both the ID (Key field) and REPORT columns.

As ReportStar moves through the PAYMENTS.DTA datafile, it will stop to print the total AMOUNT in each Key group it encounters along the way. Then it will print the total AMOUNT in the entire REPORT. When you finish selecting these summaries you will print the report. One total, one subtotal and you're done ...



1. Move the cursor to the AMOUNT line.

CTRL X 4 times

2. Ask for total amount by ID.

TYPE T for Total

3. Move the cursor to the REPORT column.

CTRL F 2 times

4. Ask for a total amount in the REPORT.

RETURN

This enters the T for Total.

5. You've finished selecting summaries. Go to the exit screen.

CTRL C

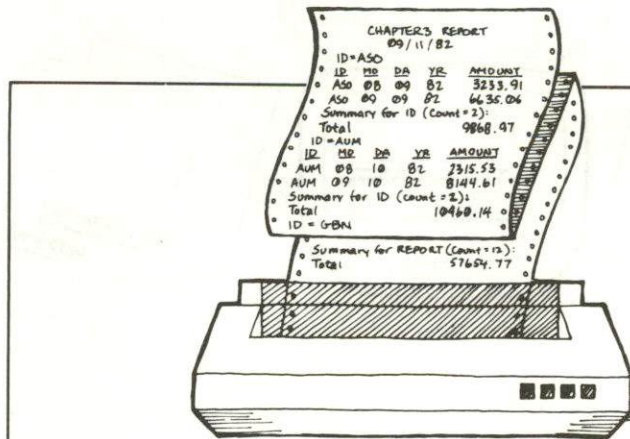
6. SELECT "R" TO SAVE THE FILE AND RUN THE REPORT ASK FOR THE REPORT TO BE PRINTED DATE THE REPORT ...AND YOUR REPORT PRINTS

First, you will choose "R" to tell ReportStar to save the CHAPTER3.RPT report specification file and call up the REPORT program. As soon as you press R, ReportStar saves the CHAPTER3.RPT file on the disk and turns this report specification file over to the REPORT program so it can run your report.

Second, you will ask the REPORT program to print the report (or write the report to a disk if you don't have a printer).

Then, you will type a date for the report, and your report will print.

Be sure your printer is on!



1. Save the file and Run the report.

RETURN

2. Ask for the report to be printed.

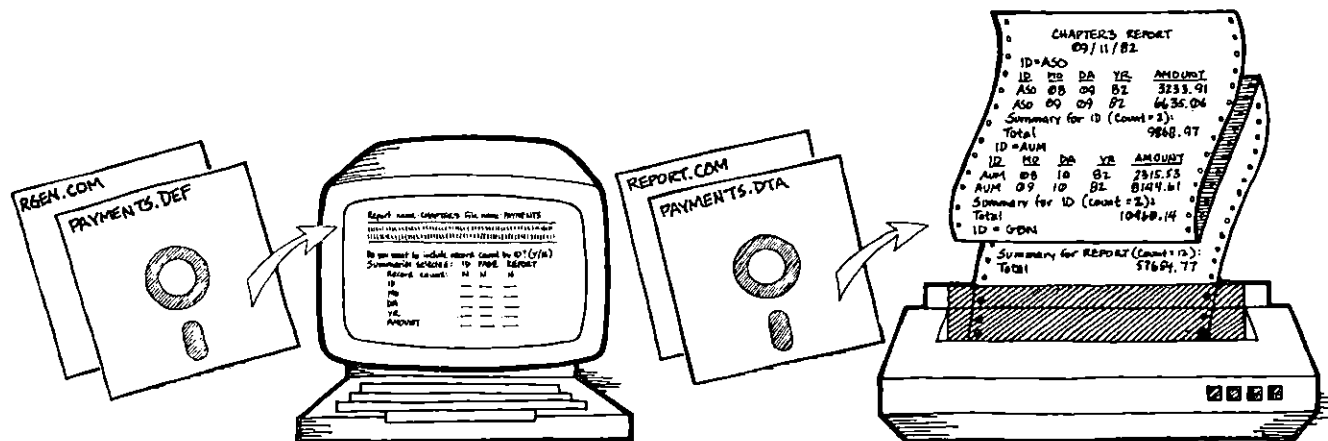
RETURN

3. Type a date.

TYPE 09 11 82
(or any date you choose)

Congratulations! You have printed your first Quick Summary with a Key field subtotal.

A Quick Review



You can use the Quick Report to subtotal data in a datafile for each Key field group.

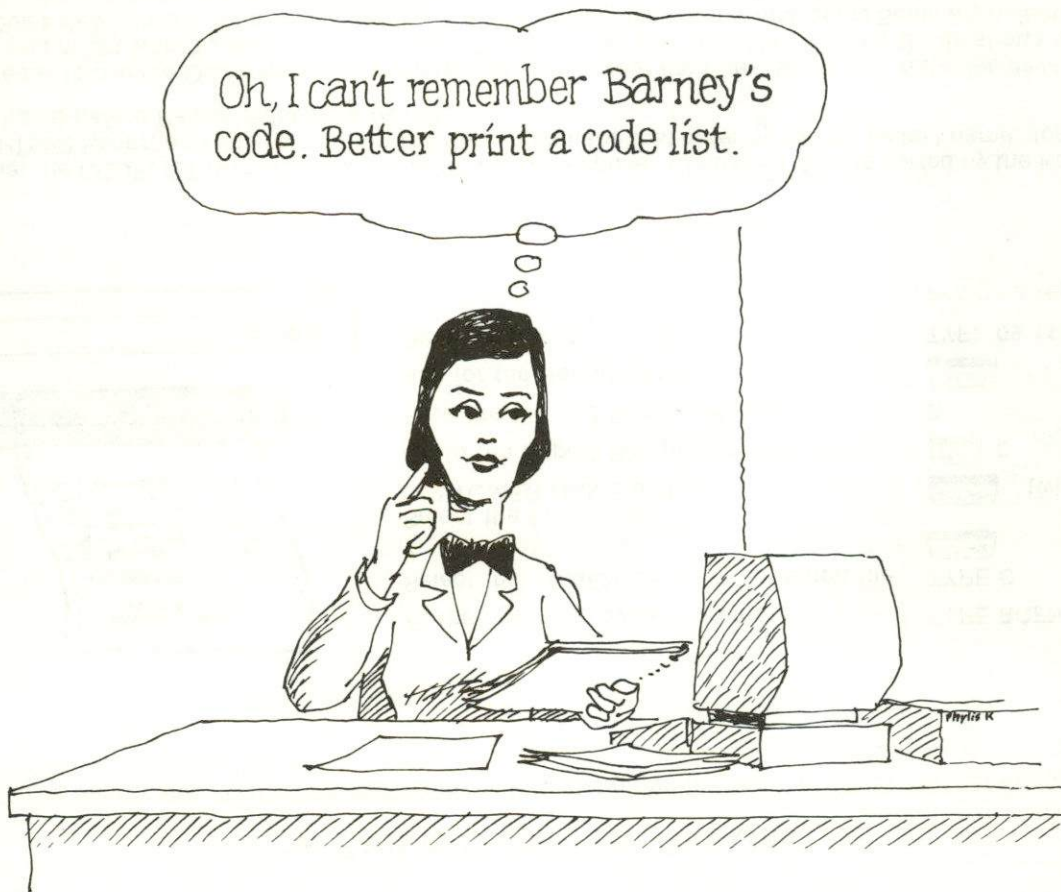
1. The Quick Report picks out the Key field(s) in the form definition file you selected and displays it (them) on the Summary Selection Screen.

2. If your datafile is sorted by Key, you will get predictable results when you ask for subtotals by Key group.

3. The Quick Report tells ReportStar to use the Key field as a control break. If you ask for summaries by Key field, ReportStar will print a summary each time the Key field group changes, that is, at each control break.

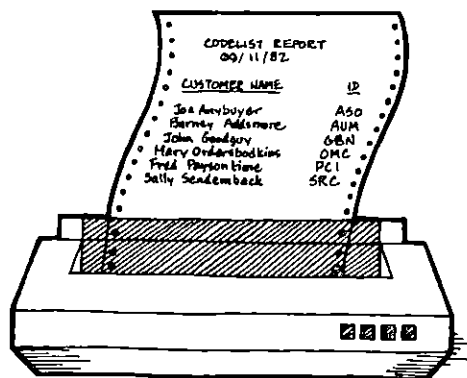
4. You can ask for any of the five summaries by Key field.

Call up RGEN
Name the Report
Select a File
Select Fields
Select Summaries
Go to the exit screen
Call up REPORT
Ask for the report to be printed
Type a date
And your report prints



How Fast is Quick? Try This One...

Use the Quick Report, the CLIENTSR.DEF example form definition file and the CLIENTSR.DTA datafile to print a customer name and code list.



At the operating system prompt

Select the CLIENTSR form definition file

Select the field names:

CUSTOMER NAME and ID

Go to the Report Completion Screen

Save the file and Run the Report

Ask for the Report to be printed

Date the report

TYPE **RGEN CODELIST**

TYPE **C**

RETURN

RETURN

twice

CTRL C

R

RETURN

TYPE **09 11 82**

... and your report prints

Notice that the CODELIST is in alphabetical order by ID. Because CLIENTSR.DTA is sorted by the Key field, ID, the CHAPTER2 Report and this report print the data in alphabetical order by ID, not by last name. Joe Anybuyer (ASO) is listed before Barney Addsmore (AUM).

You are ready to use the Quick Report to subtotal the data in *your* datafiles. But if your datafiles have more than one Key, you might want to wait until you finish Chapter 4. Chapter 4 of The Training Guide shows you how to use the Quick Report to ask for a second level of subtotals and gives you a review of the Summary Selection Screen.



You can use the Quick Report to set control breaks by Key field and print subtotals for each Key group just by typing T for Total.

SOME HELPFUL HINTS

1. If your file is not sorted into Key groups, you can either use DataStar's File Maintenance or the FormSort program to sort the file.
2. You can check to see if your datafile is sorted by the Key field assigned in the form definition file. Either use your operating system to display the file on your screen or look at the file in WordStar's non-document mode.
3. In Chapter 5 of the Training Guide you will learn how to use FormSort to change the Key sort order of your datafiles.

CHAPTER 4

Asking for a Second Key Subtotal

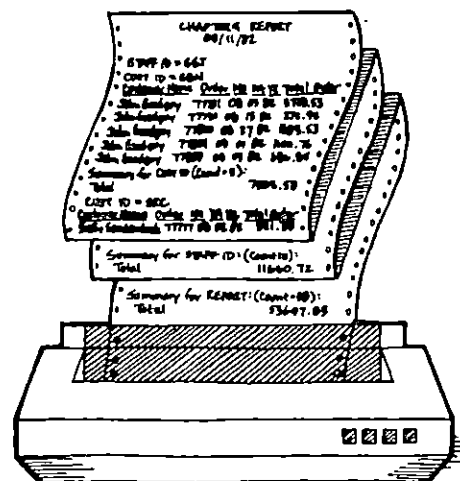
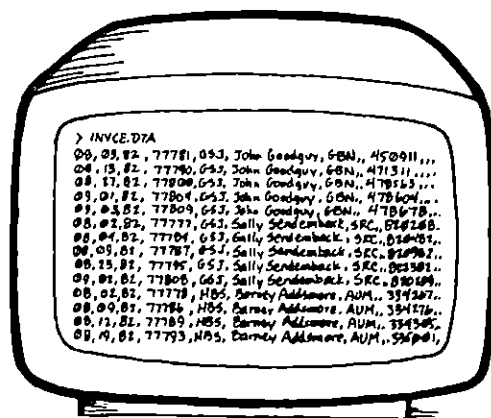
CHAPTER CONTENTS

What You'll Do in This Chapter	4-4
The Example Files You'll Use	4-5
1. MOVE TO THE FIELD SELECTION SCREEN QUICKLY	4-6
2. SELECT THE FIELD NAMES	4-7
<i>Behind the Screens</i>	
Selecting Summaries	4-8
3. SELECT SUMMARIES	4-9
4. SELECT "R" TO SAVE THE FILE AND RUN THE REPORT	
ASK FOR THE REPORT TO BE PRINTED	
DATE THE REPORT... AND YOUR REPORT	
WILL BEGIN PRINTING	4-10
Look at What You've Done	4-11
Here's How to Print this Report	
Again – Quickly	4-12
A Quick Review	4-13
How Fast Is Quick? Try This One... ..	4-15
How Fast Is Quick? Try These	4-16
Using the Quick Report and <i>Your</i> DataFiles	4-17



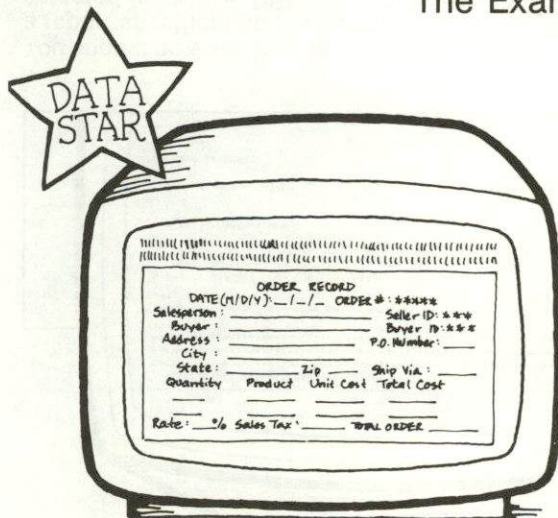
Use the Quick Report to print sales totals per customer for each salesperson.

What You'll Do in This Chapter

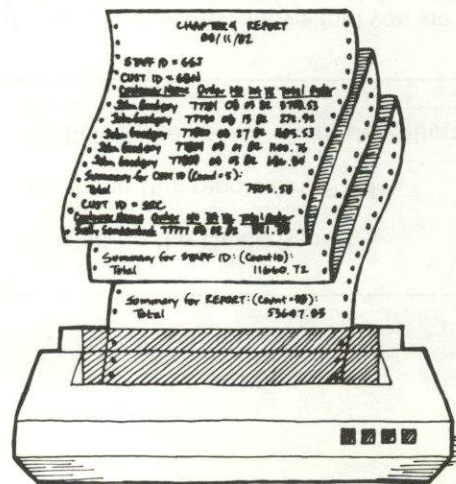


In this chapter, you will use the Quick Report program to create a sales report. The report will show the total amount of the orders stored in the INVC.DTA datafile. The report will also show two levels of subtotals. Using two of the Key fields assigned in the form definition file, you will first subtotal the orders by salesperson, using the STAFF ID field (Key level 1). Then you will use Key level 2 (CUST ID) to print the total amount ordered per customer in each salesperson's group of customers. When you finish this chapter, you will know how to use datafiles with more than one Key field to print Quick Reports. Your reports will have summaries of groups of data *within* larger groups. It's easy to print detailed reports when you use the Quick Report.

The Example Files You'll Use



You will use the INVCE.DTA example file and the INVCE.DEF form definition file in this chapter. These files, which are on your ReportStar distribution disk, were created with MicroPro's DataStar 1.4 program. The INVCE.DEF form shows three Key fields for the

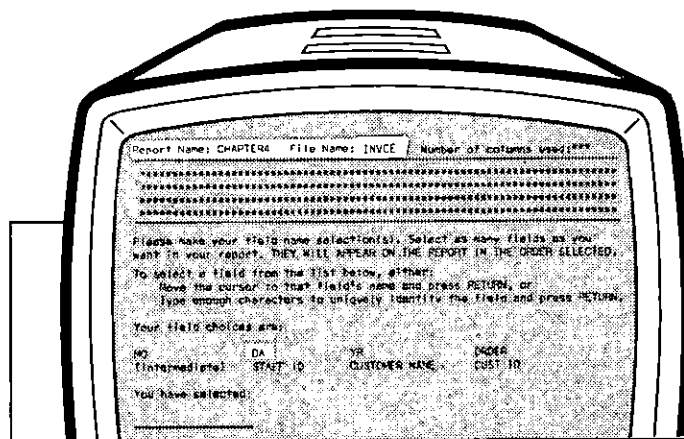


datafile. These fields are *named* STAFF ID (Key level 1), CUST ID (Key level 2), and ORDER (Key level 3). For data entry purposes, STAFF ID is labeled "Seller ID" on the form, CUST ID is labeled "Buyer ID" on the form, and ORDER is labeled "Order Number."

1. MOVE TO THE FIELD SELECTION SCREEN QUICKLY

Since you already know how to call up RGEN, enter a report name, and select a file, the instructions below will simply list what you will do, give you the name to

use for the report, and tell you which form definition file to select, rather than giving you specific commands.



1. Call up the Quick Report.
2. Name this report CHAPTER4.
3. Select the INVCE form definition file.

You should now see the Field Selection Screen. The status line at the top of the screen shows that you are creating a report specification file named CHAPTER4.RPT (Report name: CHAPTER4) and that the form definition file you selected is INVCE .DEF (File name: INVCE).

If you don't remember how to call up the Quick Report, name the report specification file of instructions, and select a form definition file, review Chapters 1-3.

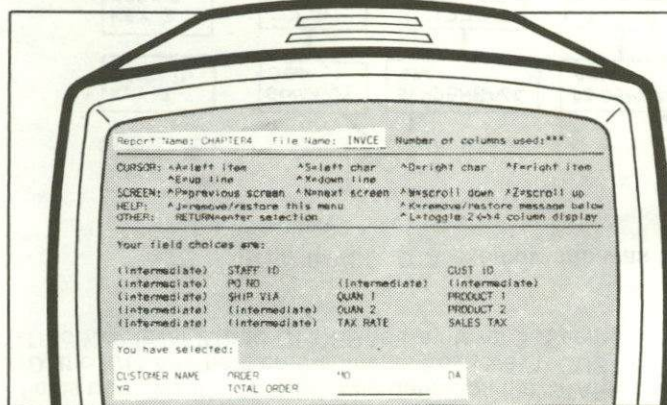
2. SELECT THE FIELD NAMES

This report will show the total orders for each salesperson and subtotals for each salesperson's customers. The two Key fields, CUST ID and STAFF ID, will automatically print when you ask for summaries. (Remember that the ID field (e.g., ID = ASO) printed on the CHAPTER3 REPORT at the beginning of each key group listing.)

You will ask the Quick Report to print the data stored

under the field names CUSTOMER NAME (customer names), ORDER (order numbers), MO, DA, YR (three fields for the date the order was taken) and TOTAL ORDER (the total dollar amount of the order).

You know how to select fields, so the instructions below simply list which fields to select in the order you must select them. If you have trouble, see the footnote below.



Report Name: CHAPTER4 File Name: INVCE Number of columns used:***

CURSOR: ^Left item ^Left char ^Right char ^Right item
 ^Up line ^Down line

SCREEN: ^Previous screen ^Next screen ^Scroll down ^Scroll up
 ^Remove/restore this menu ^Remove/restore message below

OTHER: ^Return enter selection ^Toggle 2<->4 column display

Your field choices are:

(Intermediate)	STAFF ID	(Intermediate)	CUST ID
(Intermediate)	PO NO	(Intermediate)	PRODUCT 1
(Intermediate)	SHIP VIA	(Intermediate)	PRODUCT 2
(Intermediate)	QUAN 1	(Intermediate)	SALES TAX
(Intermediate)	QUAN 2		
(Intermediate)	TAX RATE		

You have selected:

CUSTOMER NAME	ORDER	MO	DA
YR	TOTAL ORDER		

1. First, look at all the field names. **CTRL K**
2. Select the following field names in this order:
 CUSTOMER NAME
 ORDER
 MO
 DA
 YR
 TOTAL ORDER
3. When your screen matches the illustration, move to the Summary Selection Screen. **CTRL N**

HELPFUL HINTS: Remember, you can select fields by moving the cursor to the name or by typing the name. CTRL L toggles the field names into two or four columns. CTRL K toggles the screen message on and off.

To remove or replace a selection, type enough characters to identify the field name you want to remove. CTRL T will put the field name back and leave a blank at the end of the list for your next selection. CTRL V will put the field name back and leave a blank in the list of selections.

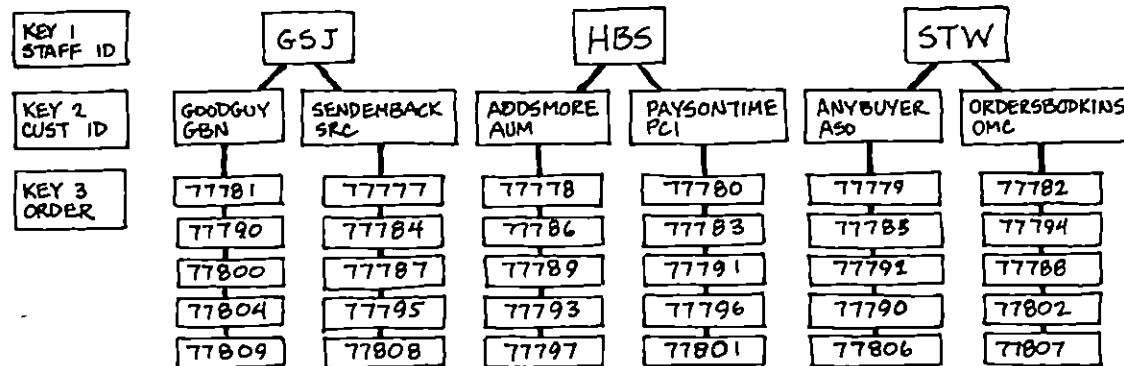
To start over with field selection, press CTRL P to go to the previous screen, type Y for yes, select the INVCE.DEF form definition file, and begin again.

Behind the Screens Selecting Summaries

The Summary Selection Screen shows the three Key fields from the INVCE.DEF form definition file. STAFF ID, the first Key field on the line, is Key level 1. CUST ID is Key level 2, and ORDER is Key level 3. Seeing

these Key field names across the top of the table on the Summary Selection Screen reminds you of the Key structure in INVCE.DEF. However, the Quick Report doesn't know if the file has been sorted.

The INVCE.DTA example file was sorted by these three Key groups.



Each of the largest Key groups in the datafile contains all the records with identical STAFF IDs, Key level 1. Within each of the STAFF ID Key groups, there are smaller groups of records, each with identical CUST IDs, Key level 2. And within each of the CUST ID Key groups, there are even smaller groups of records sorted by ORDER, Key level 3.

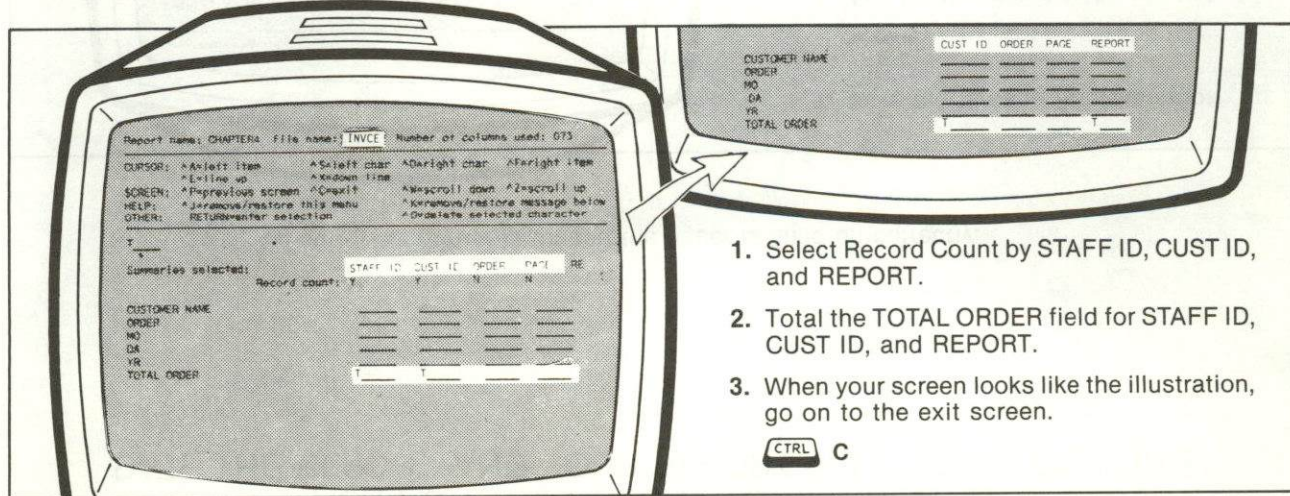
3. SELECT SUMMARIES

Each record in INVCE.DTA shows one order. The field name TOTAL ORDER has the total amount of each order.

To find the total amount of all the orders in the datafile, you will ask for a total of all the data in TOTAL ORDER for the REPORT. To find the total amount of the orders for each salesperson, you will ask for a total of TOTAL ORDER by STAFF ID. Then you will ask the Quick Report to print subtotals for each customer in a

salesperson's group by asking for a total of TOTAL ORDER by CUST ID. This last total will tell you the total orders placed by each salesperson's customer.

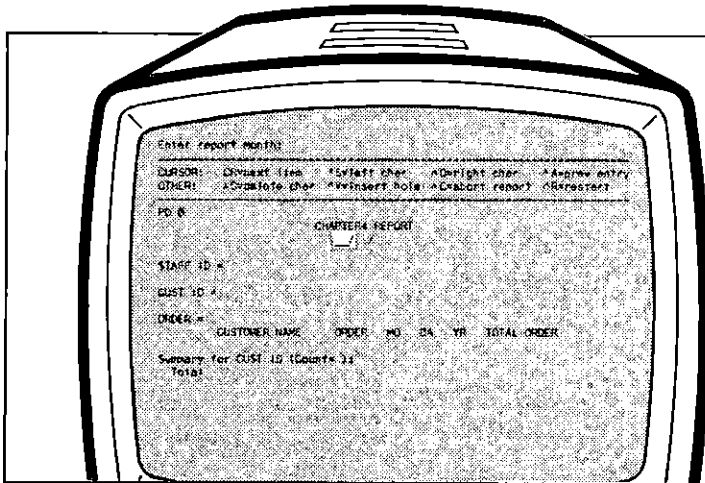
Since you know how to select summaries, the instructions below simply list the summaries to select. The Summary Selection Screen isn't wide enough to hold all the information at once. But as you select summaries, the Quick Report will move (scroll) the screen information so you can see it.



Why no totals by ORDER? Each record (that is, each order taken) is identified by one ORDER number, so the TOTAL ORDER field already has the total for each ORDER. Because ORDER is the level 3 Key in INVCE.DEF, the file can be sorted numerically by order number within each CUST ID group (which is within each STAFF ID group). You'll see the result on the printed CHAPTER4 REPORT.

4. SELECT "R" TO SAVE THE FILE AND RUN THE REPORT ASK FOR THE REPORT TO BE PRINTED DATE THE REPORT AND YOUR REPORT WILL BEGIN PRINTING

Be sure your printer is on and the paper is lined up correctly.



1. Save the file and Run the report.

RETURN

2. Ask for the report to be printed.

RETURN

3. Add a date to the report.

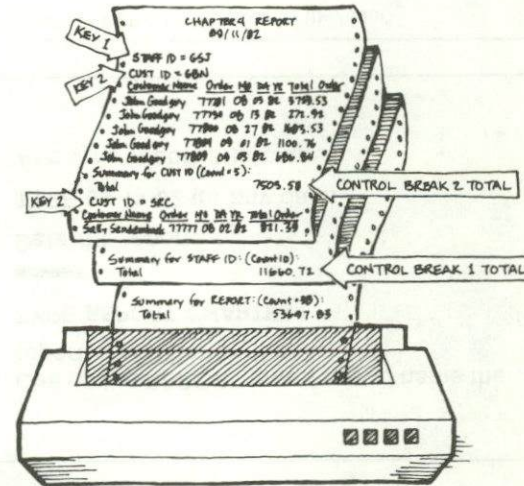
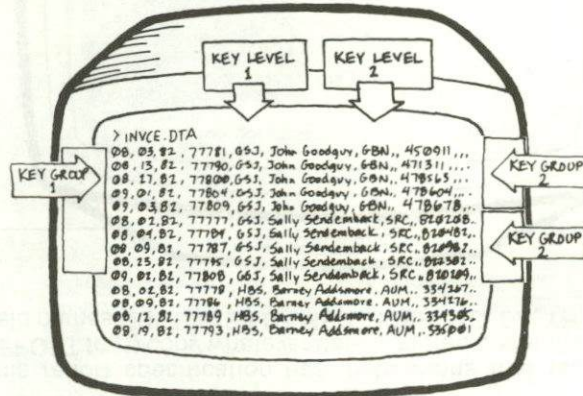
TYPE 09 11 82
(or any other date)

And your report will begin printing.

Remember, you can ask for the report to be written to a file on your disk instead of sending it to the printer.

Look at What You've Done

INVC.DTA was sorted by 3 levels of Keys. First it was sorted into STAFF ID Key groups, Key level 1, and then within each STAFF ID group by CUST ID, Key level 2. Finally, it was sorted within each CUST ID group by ORDER, Key level 3.



Notice that the STAFF IDs are in alphabetical order in the CHAPTER4 REPORT, the CUST IDs are in alphabetical order within each STAFF ID group, and the ORDER numbers are in numerical order within each CUST ID group.

When you asked for a total by the STAFF ID field, Key level 1, the Quick Report set a level 1 control break, giving you a total of TOTAL ORDER for each STAFF ID Key group. When you asked for a total by the level 2 Key, CUST ID, the Quick Report set a level 2 control break, giving you a subtotal for each CUST ID group within each STAFF ID group. (Chapter 3 introduced you to control breaks. The Reference Manual and General Information Manual have more information on Key fields and control breaks.)

Notice that the CUST ID "PCI" is in two STAFF ID groups, GSJ and OMC. That's because two different salespeople took orders from this customer.

For this reason, if you wanted to calculate the total for CUST ID "PCI" from this report, you would need to add that customer's two totals together. In Chapter 5 you will learn how to change the Key structure and sort this file so all the CUST IDs are grouped together.

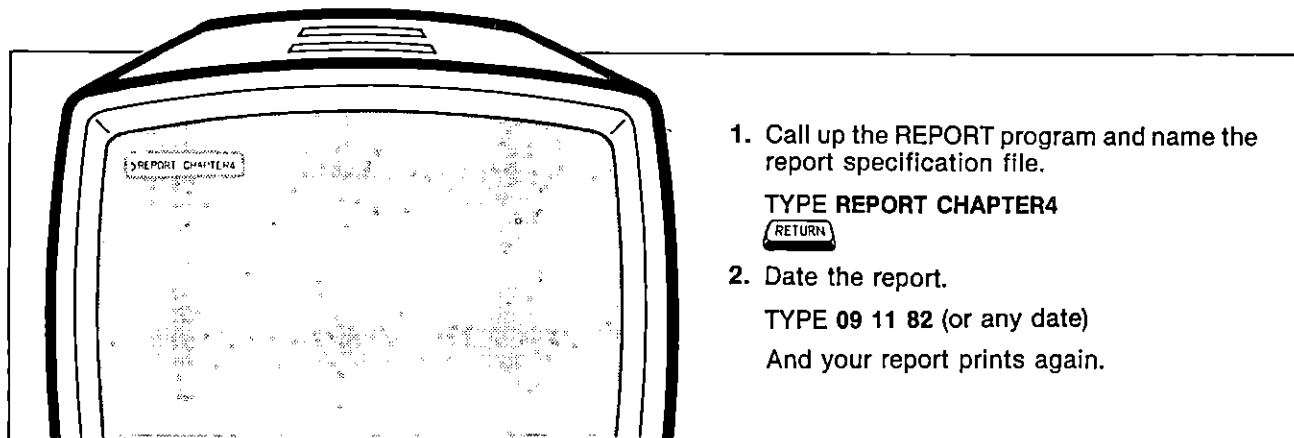
Here's How to Print this Report Again – Quickly

If Zephron were a real company, new data would continually be added to INVCE.DTA as orders were taken. Zephron might want to run this report often to show the current status of orders per salesperson and for each customer. It's easy to do. You simply call up the REPORT program and type this report specification file name (without the .RPT extension).

This report specification has instructions that tell REPORT to (1) copy whatever date is stored under the field names CUSTOMER NAME, ORDER, MO, DA, YR,

and TOTAL ORDER, (2) list the data on the report, one record to a line, (3) use the field names as titles for the columns, and (4) use the report specification file name (without the .RPT extension) as the title for the report.

In addition, this report specification has instructions to count the records and total the data in TOTAL ORDER for the entire REPORT, for each STAFF ID Key group and within each STAFF ID Key group, for each CUST ID Key group.



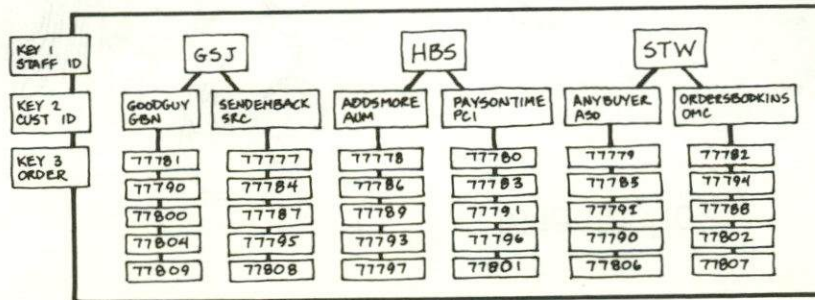
At the prompt from your operating system, you can run any report you've created by typing REPORT, followed by the report specification file name.

Remember, if your report specification file is stored on a disk in a different drive from the REPORT.COM program file, you will need to type the code for the correct disk drive before you type the name (e.g., REPORT B: CHAPTER4).

A Quick Review

You can use the Quick Report to print subtotals of data within another group of subtotaled data.

1. The Quick Report displays the Key fields on the Summary Selection Screen beginning at the left with Key 1.
2. If your datafile is sorted by the Keys, you will get predictable results. You can use DataStar's File Maintenance or ReportStar's FormSort program to sort files.
3. The Quick Report will use Key 1 as control break 1, Key 2 as control break 2, Key 3 as control break 3, etc. Your report can use up to 9 control breaks.
4. Control break 3 summaries are calculated for each Key 3 group (within each Key 2 group). Control break 2 summaries are calculated for each Key 2 group (within each Key 1 group). Control break 1 summaries are calculated for each Key 1 group in the datafile used in the report.
5. You can ask for any of the five summaries (Record Count, Total, Average, Largest, or Smallest) for any Key, for each PAGE, and for the entire REPORT, by typing the appropriate letter for the summary.
6. You can easily run any report again by calling up the REPORT program and typing the report specification file name (without the .RPT extension).



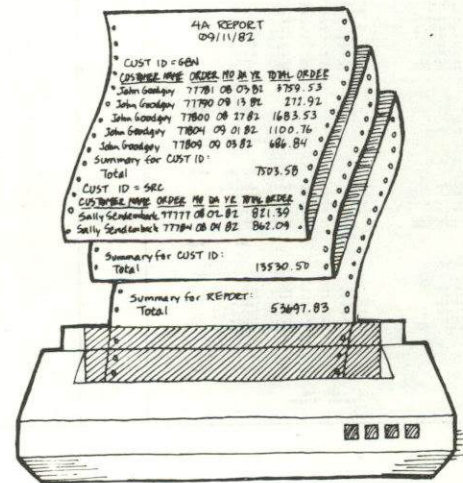


How Fast Is Quick? Try This One...

You will ask for a Quick Report that totals the orders for CUST ID, but not for STAFF ID. Since you know how

to ask for a summary by CUST ID, the instructions do not include any commands.

1. Call up the Quick Report
2. Name this report 4A
3. Select the INVCE form definition file
4. Select the field names in this order:
CUSTOMER NAME, ORDER, MO, DA, YR, TOTAL
ORDER
5. Select these summaries:
Total the TOTAL ORDER field by CUST ID and
REPORT
6. Run the report



This time you didn't select totals by STAFF ID. Even though you don't see STAFF ID on your report, the CUST ID totals are still grouped within each STAFF ID Key group. Also, the customers are still in alphabetical order within each STAFF ID Key group.

The sort order of a datafile determines the totals and subtotals you will get with a Quick Report. It also determines the order in which the data will be printed for a report. In the next chapter, you will use FormSort to sort INVCE .DTA by CUST ID and then print a Quick Report that prints totals for each customer.

Using the Quick Report and *Your* Datafiles

You've learned that the Quick Report prints the field names you select on one line on the report with data in columns beneath them, and that when the "Number of Columns Used" reaches 080, you have probably reached the limit for $8\frac{1}{2} \times 11$ " paper.

Here's a hint that will help you with Field Selection. Remember that the Quick Report automatically lists the Key fields horizontally over the columns on the Summary Selection Screen so you can select summaries by Key group (whether or not you select any of these fields for your report). If you plan to use the Key fields for summaries, you won't need to select those field names to print the data. Any Key fields you use will automatically print as Key group titles and include the data in those fields. (For example, ID = ASO.)

You have completed the Training Guide chapters on ReportStar's Quick Report program. Refer to the Reference Manual for more Quick Report information.

You have also been introduced to ReportStar's REPORT program. You will learn more about this program in the remaining Training Guide chapters, and you can refer to the Reference Manual for more information.

Chapter 5 shows you how to sort your datafiles and then use the Quick Report to print different reports from the same datafile.

The remaining Training Guide chapters show you how to use the ReportStar program called REDIT to add to and change Quick Reports and to design your own reports.

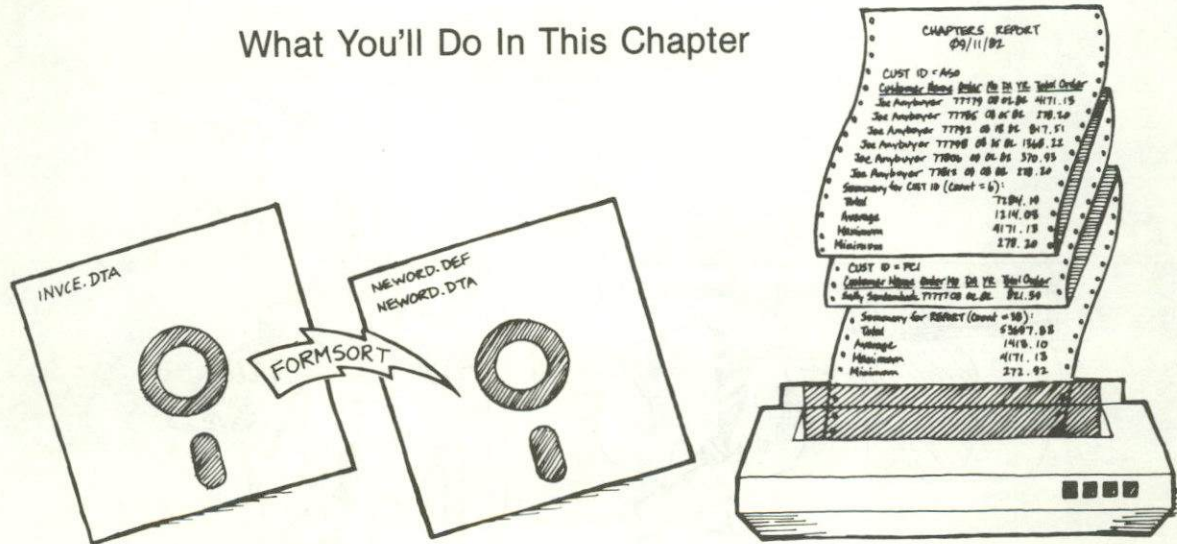
CHAPTER 5

FormSort and the Quick Report

CHAPTER CONTENTS

What You'll Do in This Chapter	5-3	3. CALL UP FORMSORT	5-12
<i>Behind the Screens</i>		4. LOOK AT THE DATA	5-13
Using FormSort and the Quick Report		5. CALL UP THE QUICK REPORT AND	
to List Data	5-5	SELECT NEWORD.DEF	5-14
The Example Files You'll Use in		6. SELECT FIELD NAMES	5-15
This Chapter	5-7	7. SELECT THE SUMMARIES AND	
BEFORE YOU BEGIN	5-8	RUN THE REPORT	5-16
1. LOOK AT THE NEWORD		Look At What You've Done	5-17
FORM DEFINITION FILE	5-9	A Quick Review	5-18
2. CHANGE THE KEYS IN			
NEWORD.DEF	5-10		
<i>Behind the Screens</i>			
The Key to a New Sort Order	5-11		

What You'll Do In This Chapter



To change the sort order of a datafile, you can simply change the Keys in the form definition file and FormSort will sort the datafile to match.

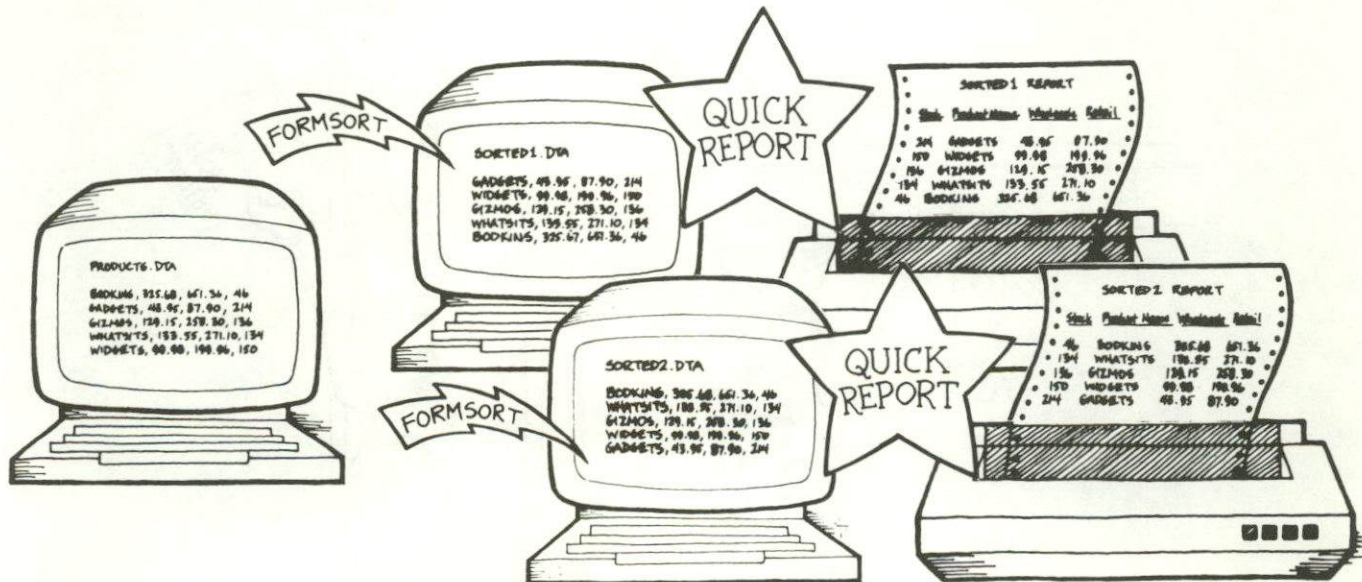
Following the instructions in this chapter, you will use FormSort to change the sort order of a datafile. Then you will use the sorted datafile for a Quick Report. When you use FormSort, you can print several different reports from one datafile.



When you use the Quick Report with FormSort, you can list data from your datafile in any order you choose.

Behind the Screens

Using FormSort and the Quick Report to List Data



FORMSORT

FormSort can sort a datafile in alphabetical order, in numerical order, or in a combination of both. You can select any field in the form definition field as the Key field. PRODUCTR.DTA was originally sorted with DataStar's file maintenance using the Key field, PRODUCT. FormSort can change the order by using either WHOLESAL (SORTED1.DTA) or STOCK (SORTED2.DTA) as the Key field.

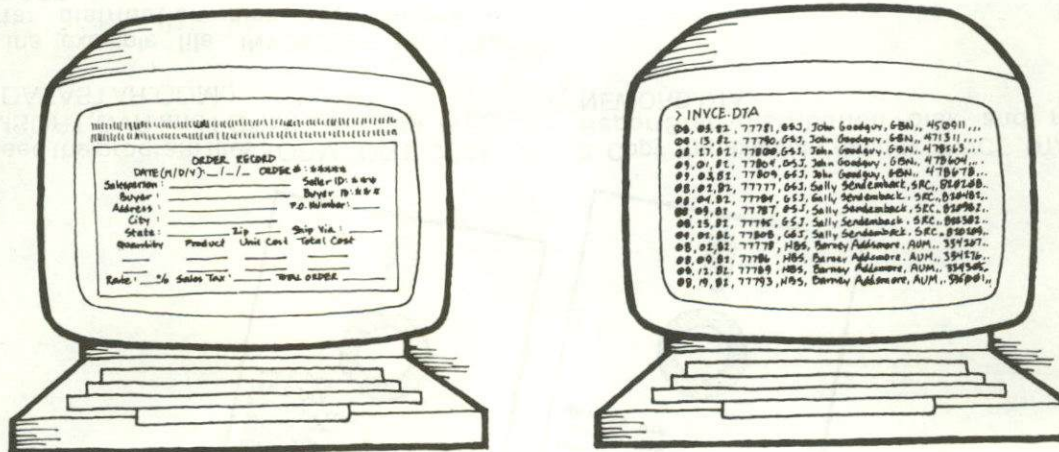
QUICK REPORT

Using Quick Report and PRODUCTR.DTA (in the CHAPTER1 Report) gave you a list of the data in alphabetical order by PRODUCT. Using the Quick Report and SORTED1.DTA gives you a list of the data in order by WHOLESAL from smallest to largest. Using the Quick Report and SORTED2.DTA gives you a list of the data in order by STOCK.



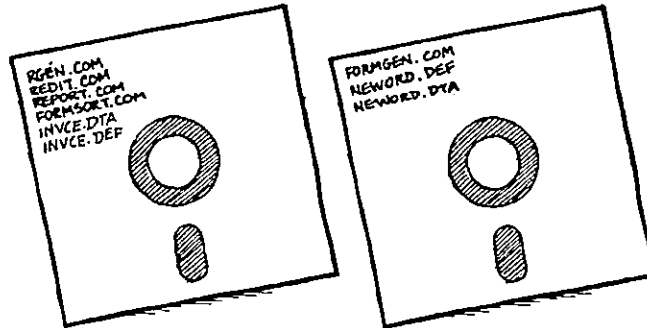
Remember that the CHAPTER4 REPORT totaled orders per customer within each STAFF ID group. To print a report that lists totals per customer in alphabetical order by CUST ID, you will need to change the sort order and Key structure of INVOICE.DTA.

The Example Files You'll Use in This Chapter



You will change the form definition file INVCE .DEF so that CUST ID is the only Key field. Then sort the INVCE .DTA datafile by this new key structure.

BEFORE YOU BEGIN



1. You need the program files FORMSORT.COM, FORMSORT.OVR and FORMGEN.COM. (You need DATASTAR.COM.)
2. Copy the example file INVCE.DEF from the ReportStar distribution disk and rename it NEWORD.DEF.
3. Copy the example datafile INVCE.DTA from the ReportStar distribution disk and rename it NEWORD.DTA.

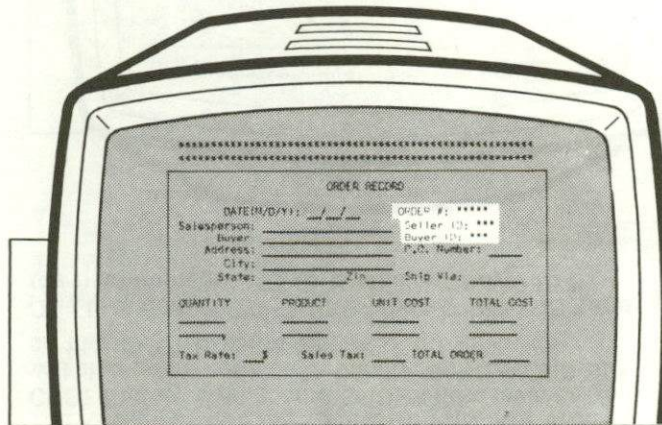
HELPFUL HINTS:

If you're using a dual drive system and have enough room on your disk, put all your .COM files on the "A" drive and use the other drive for your working files. If you're logged onto the "A" drive, remember to identify any datafiles on the other drive by typing the code for that drive before you type the datafile name (e.g., B:NEWORD.DEF).

Different operating systems have different commands for copying and renaming. See your operating system manual for the specific commands to use.

1. LOOK AT THE FORM DEFINITION FILE FOR NEWORD

Because you want to total the orders for each CUST ID, you will designate CUST ID as the Key. First use FormGen to change the Key structure in NEWORD.DEF; then use FormSort to sort the NEWORD.DTA datafile by the Key field CUST ID.



The terminal screen displays the form definition for 'NEWORD'. The form is titled 'ORDER RECORD' and is enclosed in a rectangular border. The form contains the following fields and sections:

- Header Section:** A line of asterisks followed by the title 'ORDER RECORD' and another line of asterisks.
- Form Fields:**
 - DATE(M/D/Y): / /
 - ORDER #: *****
 - Salesperson:
 - Buyer:
 - Address:
 - City:
 - State: Zip:
 - Ship Via:
 - Quantity:
 - Product:
 - Unit Cost:
 - Total Cost:
 - Tax Rate: %
 - Sales Tax:
 - Total Order:

Call up the NEWORD.DEF form definition file in FORMGEN. It should be the same as INVC.DEF.

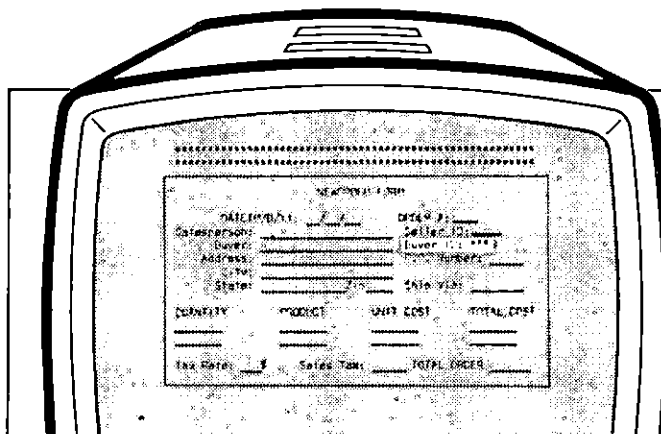
NEWORD.DEF

2. CHANGE THE KEYS IN NEWORD.DEF

The Keys in INVCE .DEF are STAFF ID (Key level 1), CUST ID (Key level 2), and ORDER (Key level 3). You will change the form definition file for NEWORD.DEF so that CUST ID is the only Key.

(The field named STAFF ID is labeled "Seller ID," and the field named CUST ID is labeled "Buyer ID.")

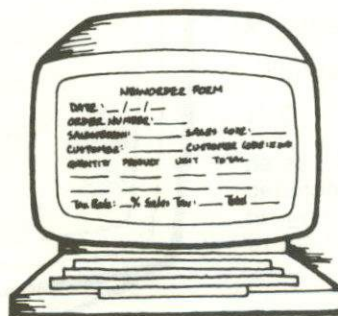
Simply move the cursor into the Key fields and use the CTRL K command to toggle off the Key designations for the ORDER and STAFF ID fields. FormGen automatically renumbers CUST ID as Key level 1. You should also change the title of the form to "NEW ORDER FORM" to match the file name.



1. Toggle off the ORDER Key.
2. Toggle off the STAFF ID Key.
3. Type a new title over the old title.
4. Save the form and boot the operating system.

You are ready to sort NEWORD.DTA.

Behind the Screens The Key to a New Sort Order



First, you will tell FormSort to sort the data in NEWORD.DTA by the Key structure of NEWORD.DEF. Then, simply tell FormSort which datafile to sort.

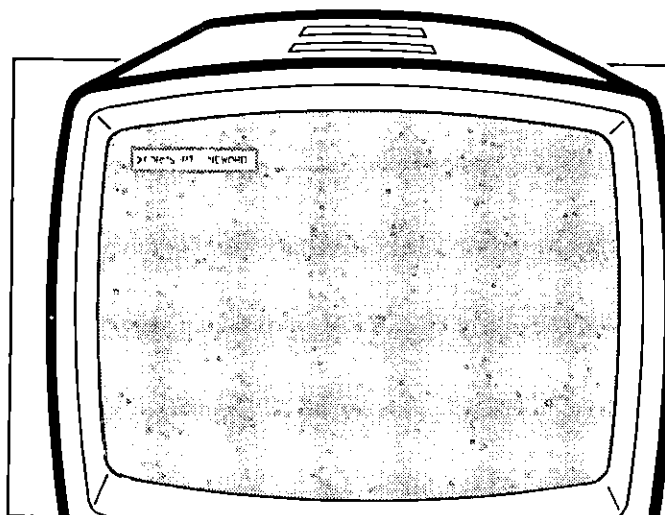
FormSort will quickly sort NEWORD.DTA into order by CUST ID and at the same time automatically create the index file NEWORD.NDX.

You can use FormSort to sort datafiles without also creating index files, or to create index files without sorting datafiles. See the FormSort section of the User Reference Manual for more information.

3. CALL UP FORMSORT

You may be surprised to learn there are no menus or screens in FormSort. You simply type instructions (which appear on the screen) on one line, just as you do when you use your operating system. FormSort will

respond only to tell you that it's finished or that you typed an instruction it can't understand or thinks is wrong.



At the prompt for your operating system, call up FORMSORT. Enter the name of the form definition file and the name of the datafile to be sorted.

1. On one line, TYPE
FORMSORT NEWORD.
2. When your screen matches the illustration,

RETURN

FormSort will display the MicroPro copyright screen, the FormSort release number, and a message telling you the sort is complete.

When a file is sorted by more than one Key field, you can print a report like the CHAPTER4 REPORT with subtotals within subtotals. FormSort will always sort a datafile by all the Key fields in the form definition file. If the .DEF file is not on the same drive as FormSort.COM and FormSort.OVR, precede the file name with the drive letter and a colon (:), i.e., FORMSORT B:NEWORD.

REFERENCE
MANUAL
4100

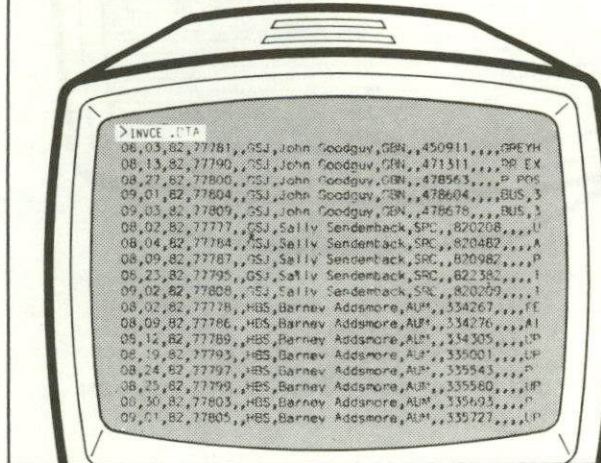
4. LOOK AT THE DATA

Use your operating system commands to display the data from INVCE.DTA and then NEWORD.DTA on your screen. The command is usually the word "Type" followed by a space and then the file name (e.g., TYPE NEWORD.DTA).

You might not be able to see all the data in each record, but you will be able to see the STAFF ID and CUST ID fields.

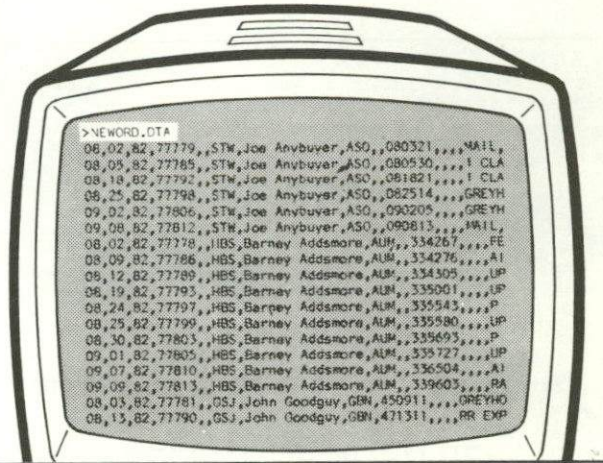
1. Look at INVCE.DTA.

Note that it is in alphabetical order by STAFF ID (field #006).



2. Look at NEWORD.DTA.

Note that it is in alphabetical order by CUST ID (field #008).

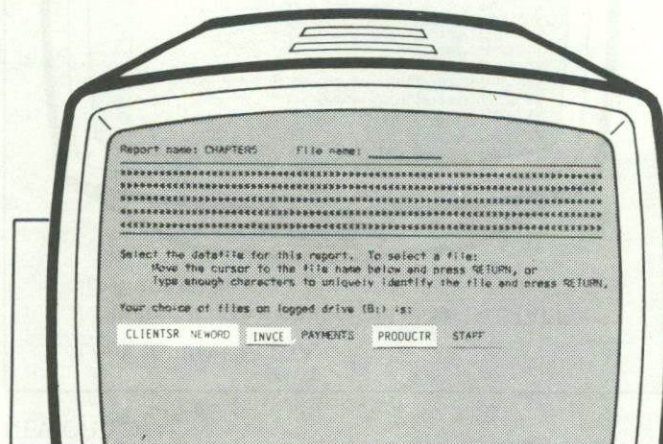


Because you sorted NEWORD.DTA by CUST ID, Key level 1, all the CUST ID codes are grouped together. The CHAPTER4 Report used INVCE.DTA, in which CUST ID is Key level 2. That report showed the CUST ID "PCI" in two Key 1 groups, GSJ and OMC.

If NEWORD.DTA is not in alphabetical order by CUST ID, you might want to start over and try again.

5. CALL UP THE QUICK REPORT AND SELECT NEWORD.DEF

Now you can create a Quick Report that gives you totals by CUST ID. Name the report CHAPTER5.



1. Call up the Quick Report (RGEN) at the operating system prompt and name the report.
2. Select the NEWORD.DEF form definition file.

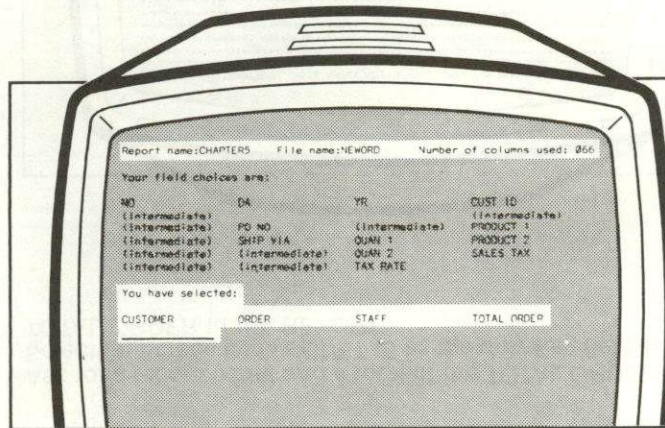
If you don't remember how to call up the Quick Report and select the form definition file, review the instructions in Chapter 1.

If NEWORD.DEF is on a disk other than your ReportStar distribution disk, you can ask ReportStar to change logged disks at the File Selection Screen by pressing CTRL L and then typing the code for the disk drive.

6. SELECT FIELD NAMES

Because the Key field name, CUST ID, automatically prints as a title for each Key group, you don't need to select this field.

Select the CUSTOMER NAME, ORDER, STAFF ID and TOTAL ORDER fields.



1. Select field names in this order:

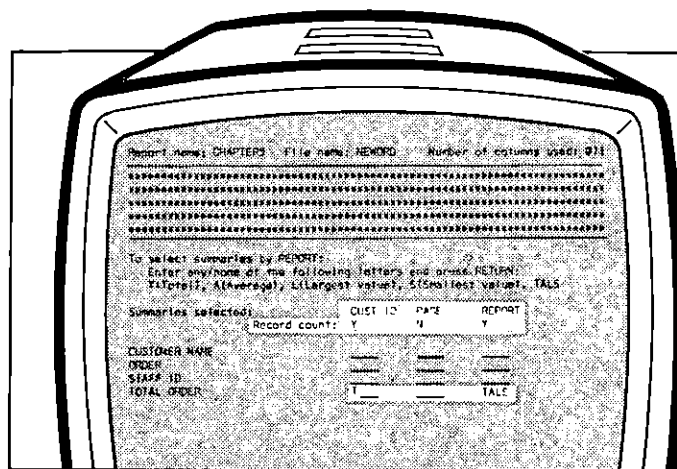
CUSTOMER NAME
ORDER
STAFF ID
TOTAL ORDER

2. Go to the next screen, the Summary Selection Screen.

CTRL N

7. SELECT THE SUMMARIES AND RUN THE REPORT

Ask for a record count and a total of the TOTAL ORDER field by CUST ID and REPORT. (Notice that the Summary Selection Screen shows CUST ID as the only Key field in the file.) Then, ask for the Average, Largest, and Smallest TOTAL ORDER in the REPORT.



Report name: CHAPTER5 File name: NEWORD Number of columns used: 21

To select summaries by REPORT:

Enter any name of the following letters and press RETURN:

F1Total; AAverage; LILargest value; SSmallest value; TALS

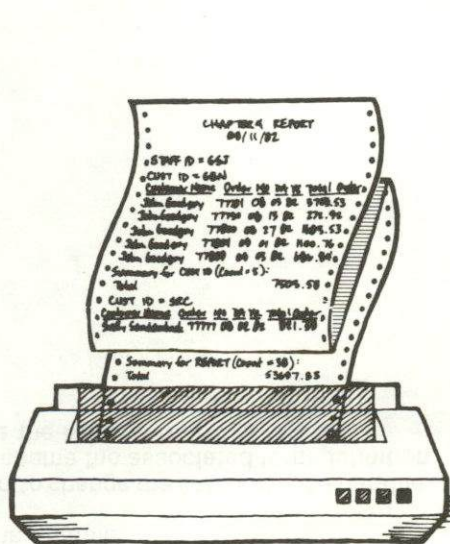
Summaries selected:

	CUST ID	PAGE	REPORT
Record count:	Y	N	Y

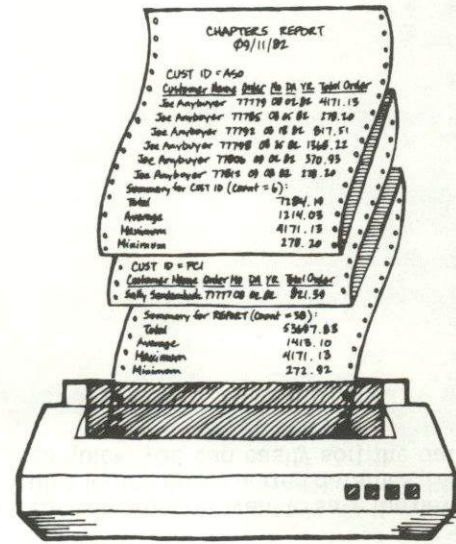
CUSTOMER NAME	ORDER	CUST ID	TOTAL ORDER
			TALC

1. Select a Record Count for CUST ID and REPORT.
2. Select a Total Summary of the TOTAL ORDER field for CUST ID.
3. Select Total, Average, Largest, and Smallest Summaries for the TOTAL ORDER field for the REPORT.
4. Go to the exit screen.
5. Run the report.

Look at What You've Done



The CHAPTER4 REPORT totaled the orders in INVCE.DTA by CUST ID within STAFF ID. The CHAPTER5 REPORT, using NEWORD.DTA



(INVCE .DTA resorted by FormSort), shows CUST ID totals in alphabetical order.

You could not print an alphabetical list of customer codes using INVCE .DTA because CUST ID, Key 2 in the datafile, is in alphabetical order *within* each STAFF ID group.

A Quick Review

FormSort is fast and it's easy to use. When you use it with the Quick Report, you can print several different reports from one datafile.

To use FormSort to change the sort order of a datafile, first copy and rename the associated form definition file and change the Keys.

Then call up FormSort. The datafile will be sorted and FormSort automatically creates an index file to match.

You will probably want to save the new form definition files for the newly sorted datafiles. Since FormSort is so quick, you can easily sort the datafile again.

CHAPTER 6

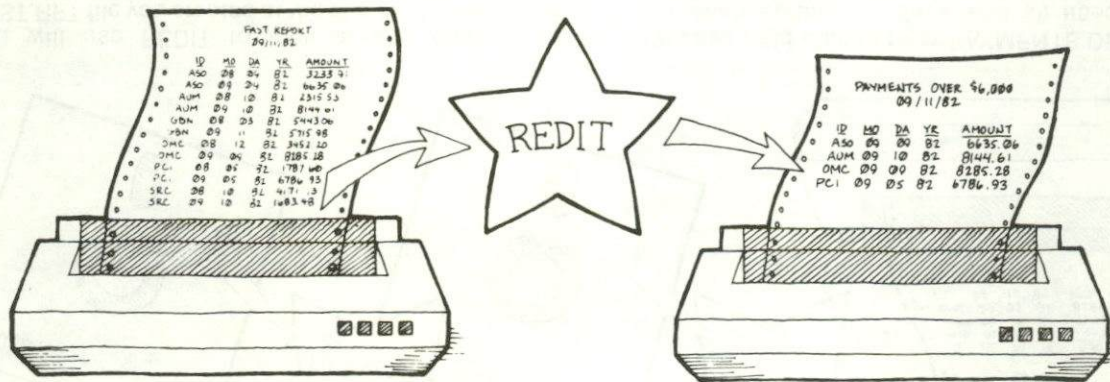
Looking at a Quick Report

CHAPTER CONTENTS

What You'll Do in This Chapter	6-3
The Example Report You'll Use	6-4
1. CALL UP THE REDIT PROGRAM	6-5
2. NAME THE REPORT SPECIFICATION YOU WANT TO SEE	6-6
3. LOOK AT THE FILE DESCRIPTION SCREEN	6-7
4. DESCRIBE THE FORM DEFINITION FILE	6-8
5. DATA IN OR DATA OUT?	6-9
6. ACCESSING THE DATA	6-10
7. LOOK AT THREE MORE ANSWERS	6-11
8. NAMING THE DATAFILE	6-12
9. LOOK AT THE LAST PROMPT	6-13
10. INCLUDE ONLY THE DATA YOU WANT TO SEE IN THE REPORT	6-14
11. LOOK AT THE REPORT LAYOUT AND THE HELP SCREENS	6-15

<i>Behind the Screens</i>	
Some Special Effects	6-16
12. LOOK AT MORE PRINT CONTROL COMMANDS	6-17
13. CHANGE THE TITLE OF THE REPORT	6-18
14. PRINT A REPORT SPECIFICATION FILE LISTING	6-19
<i>Behind the Screens</i>	
Look at the Report Listing	6-20
15. GO TO THE EXIT SCREEN	6-21
<i>Behind the Screens</i>	
Your Exit Choices	6-22
16. SAVE AND RUN THE REPORT	6-23
Look at What You've Done	6-24
A Quick Review	6-25

What You'll Do In This Chapter



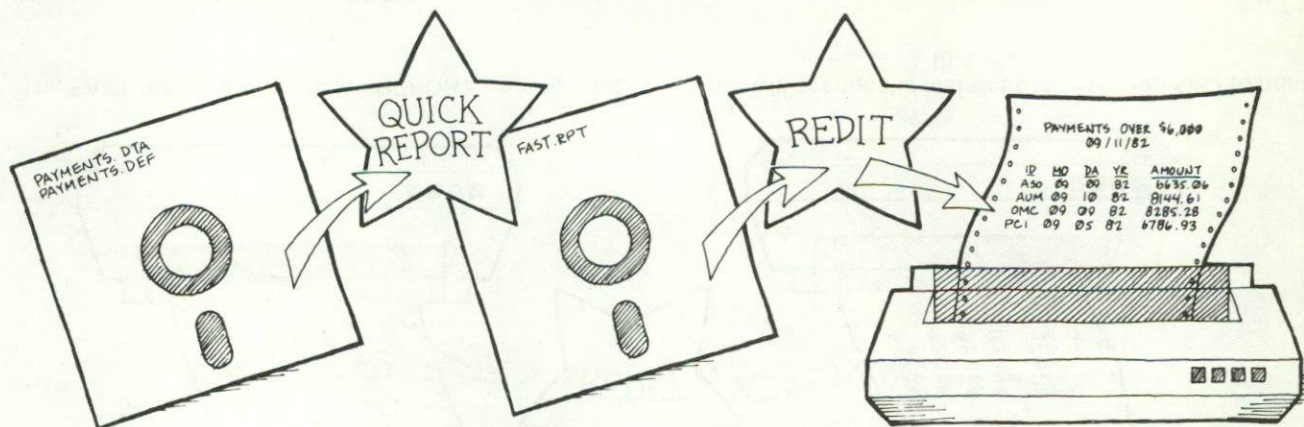
The FAST.RPT instructions tell REPORT what to print.

You will change the instructions to tell REPORT to print this report.

You can use the ReportStar REDIT program to look at an existing report specification file, change the specification, or create a report from scratch.

There are three parts to REDIT: File Description, Field Definition, and Report Layout. Chapter 6 shows you how to change the File Description entered by the Quick Report. You will also change the Report Layout. Chapter 7 will show you how to enter a File Description, create a Report Layout, and enter Field Definitions by yourself.

The Example Report You'll Use



You will use REDIT to look at and change the FAST.RPT file you created at the end of Chapter 1. This report (1) prints all the data stored in PAYMENTS.DTA,

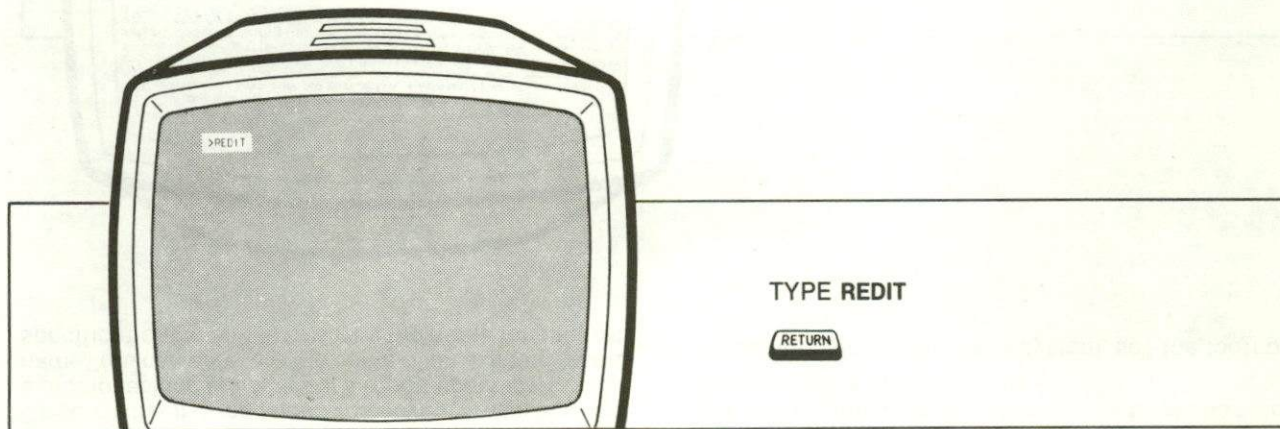
(2) uses field names from PAYMENTS.DEF as labels for each column of data, and (3) uses the report specification file name, FAST, as the title for the report.

If you have not created the FAST.RPT file, use the instructions in the "How Fast is Quick?" section of Chapter 1 and create that report before you continue.

1. CALL UP THE REDIT PROGRAM

ReportStar includes three programs: RGEN, REDIT, and REPORT. They are listed on your distribution disk with the extension ".COM" to show they are files with

program commands. You will use REDIT to look at a report specification file you created with RGEN.



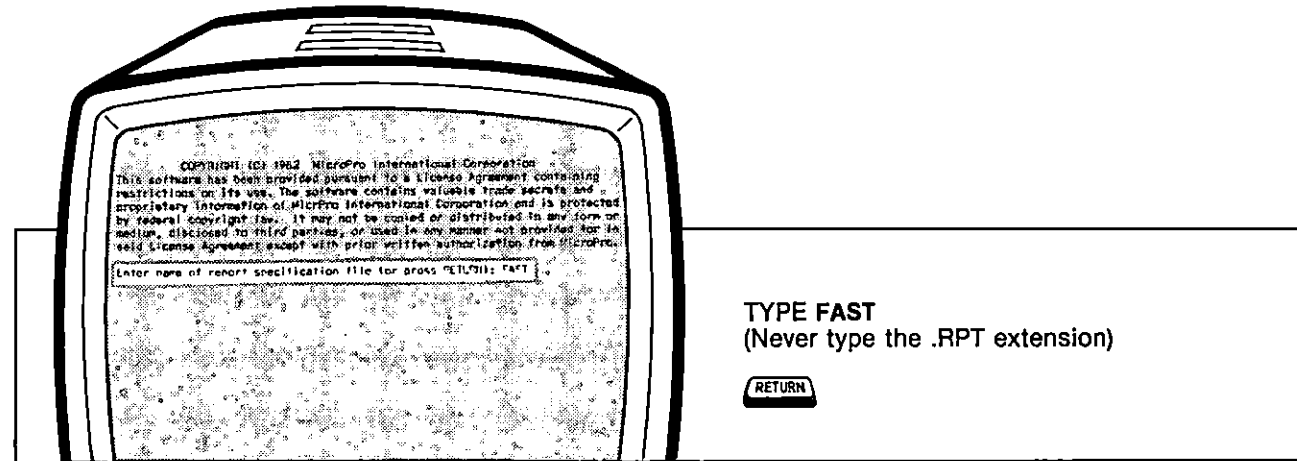
You can also go directly into REDIT from the Quick Report exit screen. Often the fastest way to create a report specification is to use the Quick Report program to select the file and fields. RGEN creates the report layout. Then, without running the report, you can move directly into REDIT to customize the report. Chapter 1 describes the RGEN exit choices. This chapter shows you some ReportStar features for customizing a Quick Report.

2. NAME THE REPORT SPECIFICATION FILE YOU WANT TO SEE

On your screen is the MicroPro copyright message and a prompt asking you to enter a report specification file name. You can enter the file name of an existing report specification (to edit it) or a new file name for a report

you wish to create now. Follow the instructions below to look at the FAST.RPT file in REDIT.

If you are using a dual drive system, see the footnote.



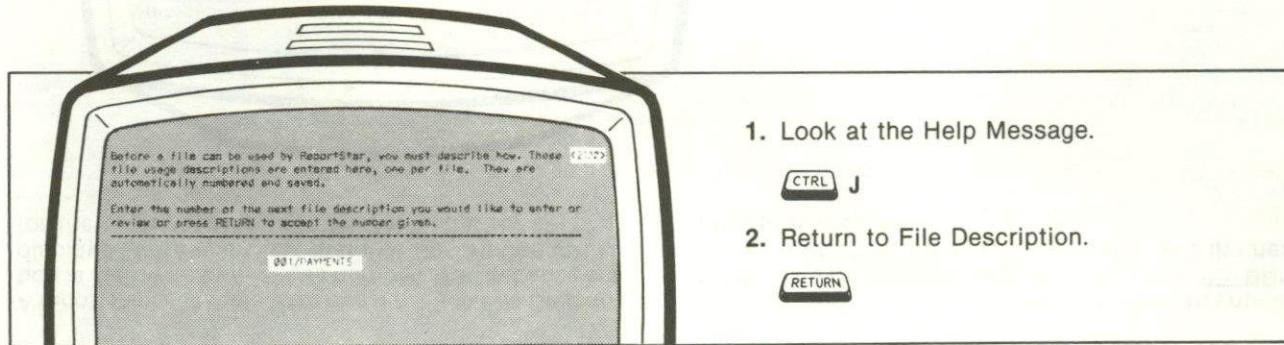
If you are using a dual drive system and your report specification file is not on your logged disk drive with the ReportStar program, type the letter for the drive with the report specification file, a colon, and then the report specification file name (e.g., B:FAST).

3. LOOK AT THE FILE DESCRIPTION SCREEN

The REDIT File Description Screen is displayed. Notice that the status line at the top of the screen shows the report specification file name FAST.

Each file must have a file description to tell ReportStar how to use the file in the report. A file is described by entering answers to a series of questions (prompts) displayed on your screen.

When you selected the PAYMENTS form definition file in RGEN, a file description was entered for you. You will look at this file description and change one answer. But first, you'll look at a REDIT Help Message. You'll see a number in the upper right-hand corner of your screen. Use this number if you need additional information from the User Reference Manual. Notice that this Procedure Number is also in the footnote below.



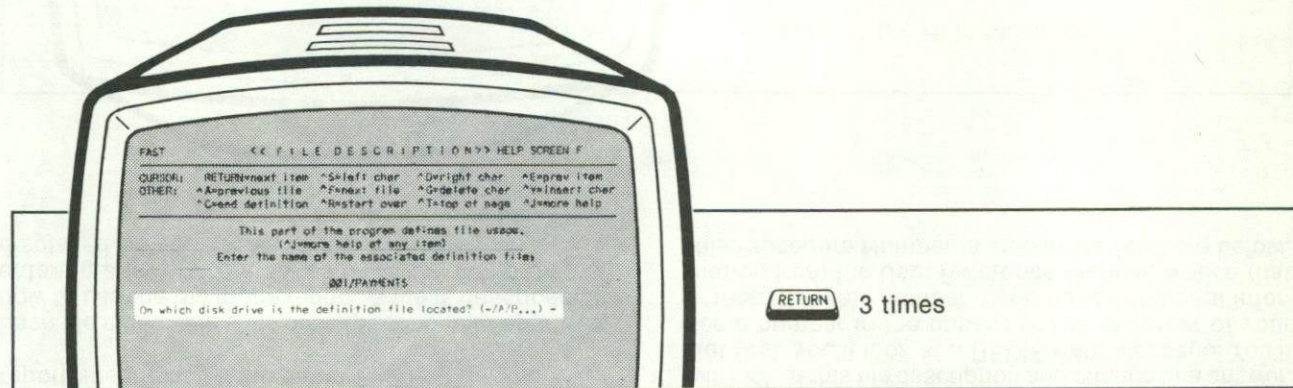
The Help Menu at the top of your screen displays cursor control commands for File Description. Use CTRL J at any prompt for more help. You can't back out of REDIT; you must go forward. To exit, press the following keys in order: CTRL C, CTRL C, S, CTRL C.

No File Description on your screen? If your screen shows text beginning "This is a two part program," the FAST.RPT file is not on your logged disk. Press the following keys to exit: CTRL J, CTRL C, CTRL C, A, Y, CTRL C.

4. DESCRIBE THE FORM DEFINITION FILE

A report may use more than one file. Each File Description is identified by a unique number. The first answers displayed tell ReportStar that File Description 001 is for the form definition file PAYMENTS.DEF.

You will look at all the prompts and answers entered for this File Description. Each time you press RETURN, the answer under the cursor is entered and the next prompt is displayed.



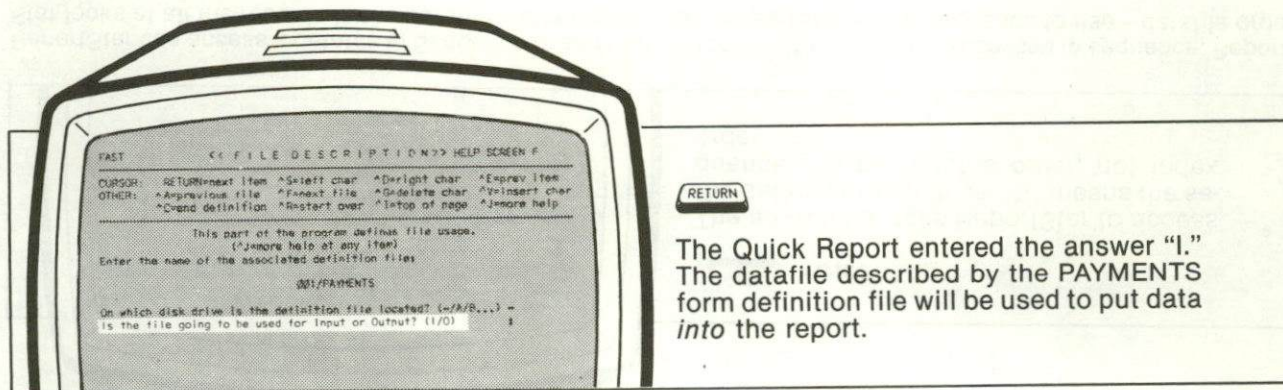
You must enter the name of a form definition file to describe each datafile you want to use for a report. Then you must tell ReportStar where the form definition file is located. The answer "-" means PAYMENTS.DEF is on the disk in the logged drive. ReportStar adds the information from the form definition file to the report specification.

You can change the report specification to include any changes made to the form definition file. The Reference Manual tells you how to change the information ReportStar stored from the form definition file. Once you have completed a report specification, it is no longer important to ReportStar whether the form definition file is on the disk drive you entered.

REFERENCE
MANUAL
2100, 2105,
2110

5. DATA IN OR DATA OUT?

The next prompt asks if the file will be used for Input or Output.

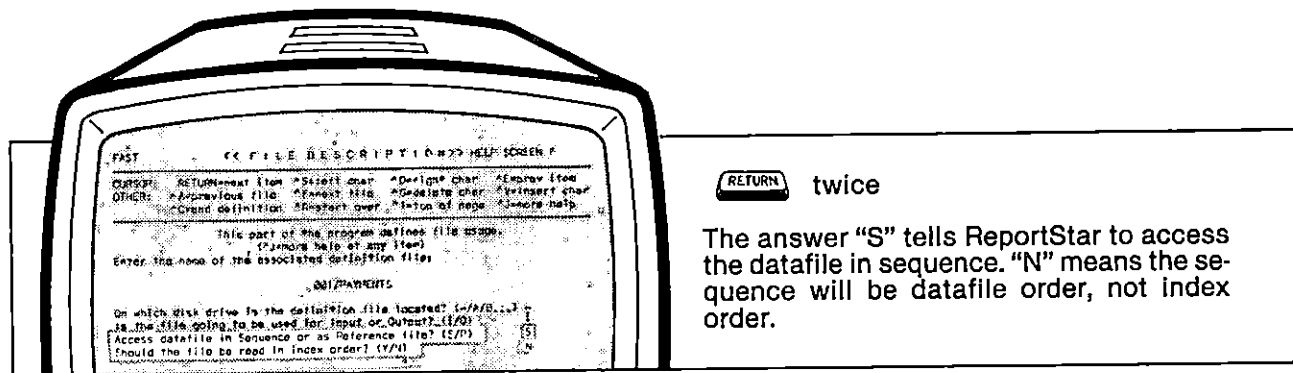


ReportStar can either take data from the file and put it into the report (Input) or take data from the report and put it into the file (Output).

If you answer "O" for output, you can send the data to a datafile that already exists or you can create a new datafile. ReportStar will also create an index file for your output file.

6. ACCESSING THE DATA

The answers to the next two prompts tell ReportStar how to access the data in the datafile.



ReportStar can access a datafile in Sequence or as a Reference file. When a file is accessed in sequence, ReportStar looks at all the records in the datafile. You must also tell ReportStar which sequence to use—datafile order or index order.

Accessing a file in datafile order means ReportStar begins with the first record in the datafile and moves consecutively through the file, reading each record in turn. RGEN always accesses a datafile this way.

When a file is accessed in index order, ReportStar will read the records in the sequence of the Index file. This method is helpful if you have not sorted your datafiles.

Accessing a file in sequence by datafile order is the fastest way to bring data into a report.

When you want to look up particular records from the datafile, tell ReportStar to access the file as a Reference file. To tell ReportStar which records to look up in a Reference file, you must use the Field Definition part of REDIT. You will learn how to access records this way in Chapter 8.

To access a file in index order or as a Reference file, the index file must be on the same disk as the datafile.

REFERENCE
MANUAL
2130,
2135

7. LOOK AT THREE MORE ANSWERS

Answers to the next three prompts tell the REPORT program how to set itself up to process your data.

FAST << FILE DESCRIPTION >> HELP SCREEN F

CLASS: RETURN:next item ^S:left char ^D:right char ^E:prev item
OTHER: ^A:previous file ^F:next file ^G:delete char ^Y:insert char
^C:end definition ^R:start over ^T:top of page ^J:more help

This part of the program defines file usage.
(^J:more help at any time)

Enter the name of the associated definition files

QWERTY:MENTS

On which disk drive is the definition file located? (w/A/P...) ^
Is the file going to be used for Input or Output? (I/O) ^
Access datafile in Sequence or as Reference file? (S/R) ^
Should the file be read in Index order? (Y/N) ^
How large should the disk buffer be? 000
Will the file include more than one volume? (Y/N) ^
Will the datafile name(s) be entered at run time? (Y/N) ^

RETURN

RGEn always tells REPORT to allot an eight sector disk buffer.

RETURN

RGEn always tells REPORT the datafile is in one volume (stored under one name on one disk).

RETURN

RGEn answers "N" for No, so the datafile name becomes a part of the File Description.

If you were to enter "Y" for yes in answer to the question, "Will the datafile name(s) be entered at runtime?" the REPORT program would ask you for the name of the datafile each time you ran the report.

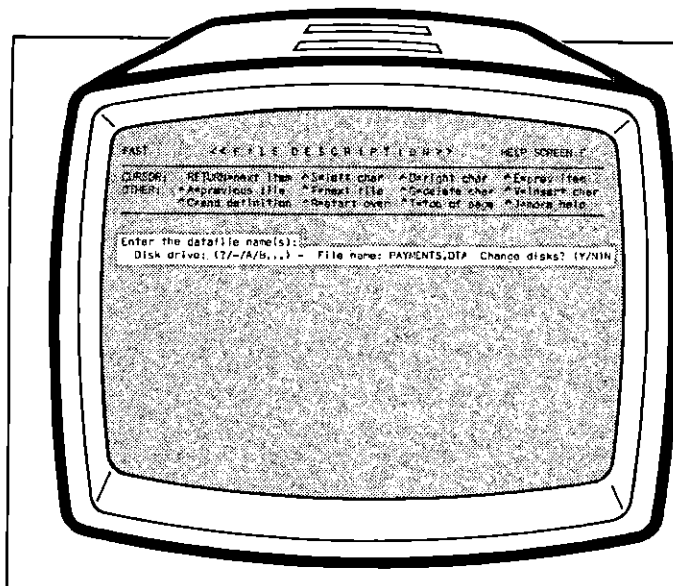
The disk buffer provides temporary storage for data that will be used in the report. If you need more information, press CTRL J at any prompt.

REFERENCE
MANUAL
2140, 2145,
2150A

8. NAMING THE DATAFILE

A Quick Report requires that the datafile name be included in the File Description rather than entered at run time. The next series of prompts identifies the datafile.

You must tell ReportStar the location and name of the datafile. ReportStar also asks if you want a message displayed that tells the report operator to put a new disk in the disk drive.



RETURN

The Quick Report always enters a "-" to say the datafile will be on the disk in the logged disk drive.

RETURN

The Quick Report always enters a datafile name (PAYMENTS) that is the same as the form definition file name.

RETURN

Datafiles used in a Quick Report must have the extension ".DTA."

RETURN

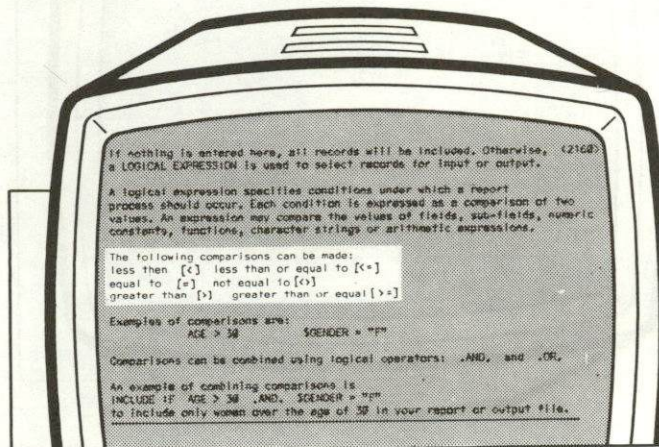
If you were to answer "Y" at this prompt, REPORT would ask you to insert the disk with PAYMENTS.DTA.

If you tell ReportStar the datafile is in more than one volume, duplicates of this line will appear on the screen allowing you to enter more than one datafile name. A "?" allows you to enter the disk drive code while the report is running. CTRL E moves the cursor to the previous prompt. Check the help menu at the top of your screen for more cursor control commands.

REFERENCE
MANUAL
2152A, 2153A,
2154A, 2155A

9. LOOK AT THE LAST PROMPT

Now look at the last prompt and its Help Message. Use this prompt to select only certain datafile records for the CHAPTER6 report.



1. **RETURN**

The prompt, "Enter the condition(s) for record inclusion: INCLUDE IF" appears.

2. Look at the Help Message for this prompt.

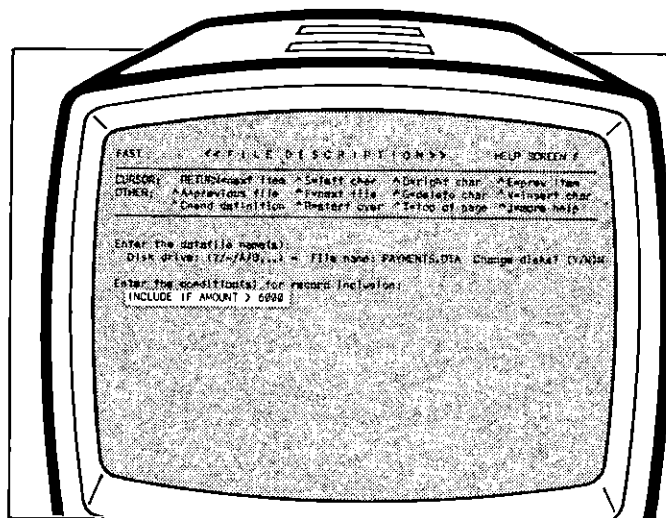
CTRL J

To tell ReportStar which records you want to select, you type a logical expression. The FAST report used *all* the records in PAYMENTS.DTA because no logical expression was entered here.

10. INCLUDE ONLY THE DATA YOU WANT TO SEE IN THE REPORT

The CHAPTER6 report will include a record only if the payment is over \$6,000. ReportStar will look at the data stored in the field named AMOUNT and compare it to

it to the number 6000. If the data in the AMOUNT field is greater than 6000, ReportStar will include that record in the report.



1. Return to the prompt. **RETURN**

2. TYPE **AMOUNT >6000**

Your screen should match the illustration.

3. Enter the expression. **RETURN**

ReportStar now allows you to enter the name and number of a second file for the report. You will not add a file to this report.

4. End File Description and move to the Report Layout Screen.

CTRL C

If you make a typing mistake, backspace and retype. To remove a character, position the cursor on the character and press CTRL G.

You can use an INCLUDE IF expression to set up a variety of conditions for including a record in your report. By changing the expression, you could specify that this report include only particular customers, payments made during a particular month, etc. Use your imagination and Appendix C in the ReportStar Reference Manual.

If you press CTRL J *after* you type the logical expression, the expression will disappear when you return to the prompt. You will have to retype it.

11. LOOK AT THE REPORT LAYOUT AND THE HELP SCREENS

Displayed on the screen is the report layout form created for you by the Quick Report. The status line notes that this is the FAST report, that the cursor is positioned in line 1 (LIN = 001), character 1 (CHR = 001), and that Help Screen 3 is on the screen.

A ReportStar layout form is similar to a FormGen form. Just as in FormGen, fields are marked by underlines and show where data will be put on the report. For example, beneath the report title, FAST REPORT, you can

see the three fields where you entered the data for month, day, and year at runtime.

You will learn why several items on the screen didn't print on the report and why there is a character on the screen to the left of the cursor, even though the status line says the cursor is in character 1.

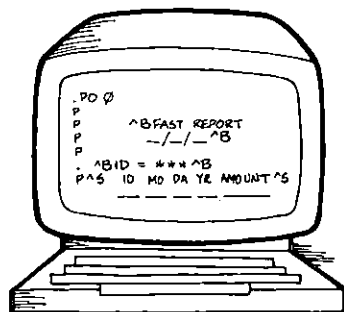
But first look at the three other Help Screens. Some of the cursor control commands listed will be familiar. You will learn how to use the new ones later.



^J = ROTATE HELP
HELP SCREENS 1,2,3,4

1. **CTRL J**
You now see Help Screen 2 and some new commands.
2. **CTRL J**
Help Screen 1 has no cursor command listings.
3. **CTRL J**
When you design a report entirely with REDIT (instead of starting with RGEN), you'll see this introduction to REDIT after you enter the report name. That's why it says, "Type ^J to begin the first part of the program."
4. **CTRL J**
You're now back where you started at Help Screen 3.

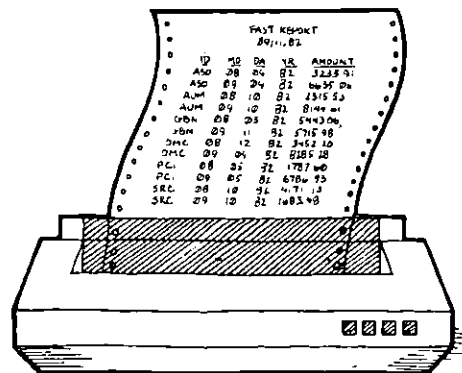
Behind the Screens Some Special Effects



ReportStar can print reports with many WordStar special effects. The Quick Report enters some special effects codes automatically.

Just to the left of the report title and just after the field where you enter the year, you see the character “^B.” When you use this command, all the words between the “^B” characters will be printed in boldface.

The line with the field names that become headings for columns of data has the character “^S” at the beginning and end. These characters tell ReportStar to



underline each word between the two “^S” characters. The characters “^B” and “^S” do not print on the report.

You also see two entire lines that did not print on the report. One line, at the top of the screen, has a dot in the first column and then the letters “PO” and the number “0.”

The first column of the layout (to the far left) is reserved for commands that tell ReportStar when to print each line on the report. It’s called the print control column.

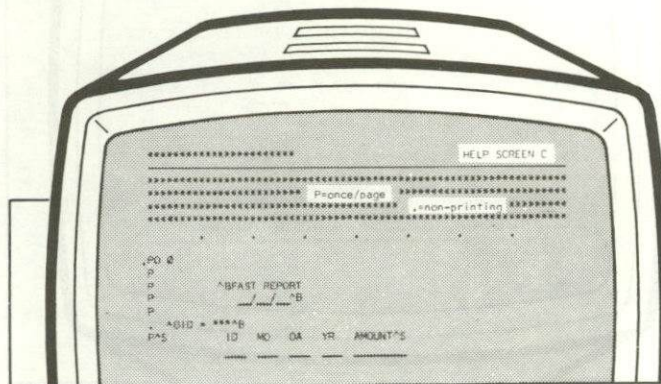
The letters “PO” stand for “page offset” and tell ReportStar where to put the left margin. If you were to replace “0” with the number 5, the whole report would be indented 5 characters from the left. The “dot” in the first column tells ReportStar not to print this line. You can use dots in the first column to stop lines from printing whether or not you also enter a dot command. Dot commands are used the same way in WordStar and ReportStar.

REFERENCE
MANUAL
2240
2260

12. LOOK AT MORE PRINT CONTROL COMMANDS

On the second nonprinting line (with a "." in the print control column), you see "^BID = ***^B." Because the ID field is the Key field in the PAYMENTS file, the Quick Report automatically puts this field on the report layout form in case you want to use it as a control break field.

(Asterisks rather than underlines mark control break fields.) But because you didn't ask for a total, the Quick Report didn't need this control break and put a dot in the print control column to stop the line from printing.



Move the cursor into the print control column.

CTRL S

The status line shows CHR = CTL.

Each line of a report must have a code in the print control column. Help Screen C shows the codes that tell ReportStar when to print each line of the report. The Quick Report used the following codes: a dot for nonprinting lines, a "P" for lines that print once on each page, and a "SPACE" for lines that always print.

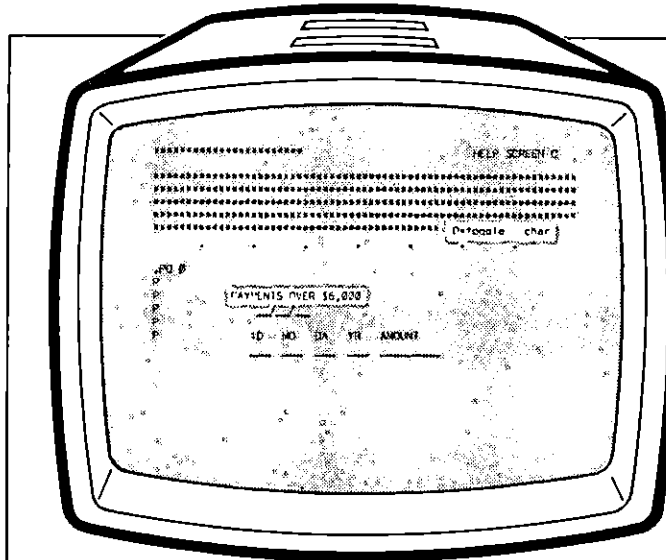
There is a "SPACE" in the print control column on line 008. This line has the report fields for data from the ID, MO, DA, YR, and AMOUNT datafields in PAYMENTS.DTA. This line prints the detail of the record (the data that goes in the report fields) once for each record used in the report.

You learned about control breaks and Key fields in Chapters 3 and 4. The Quick Report enters instructions to print the field names, report title, and date once on each page. To exit: Press CTRL C, S, CTRL C. The logical expression you entered will be saved in the report specification file. You can call up the FAST.RPT report specification file in REDIT and begin again.

13. CHANGE THE TITLE OF THE REPORT

Move the cursor out of the print control column, command the layout screen to show only what will print,

and then change the title to show that this report includes only amounts over \$6,000.



1. Return to the layout. **CTRL D**
2. Move the cursor to the report title so you can change it. First, move the cursor down two lines.
CTRL X two times.
3. Now move the cursor to the title, right one item.
CTRL F
4. Temporarily remove all the nonprinting lines and commands.
CTRL O
CTRL O is a toggle key. If you press it again, the non-printing lines and commands will appear back on the screen. Leave them off.
5. Type the new title right over the old title.
TYPE PAYMENTS OVER \$6,000

You can use any title you want on the report layout, but the report specification file is still named FAST.RPT.

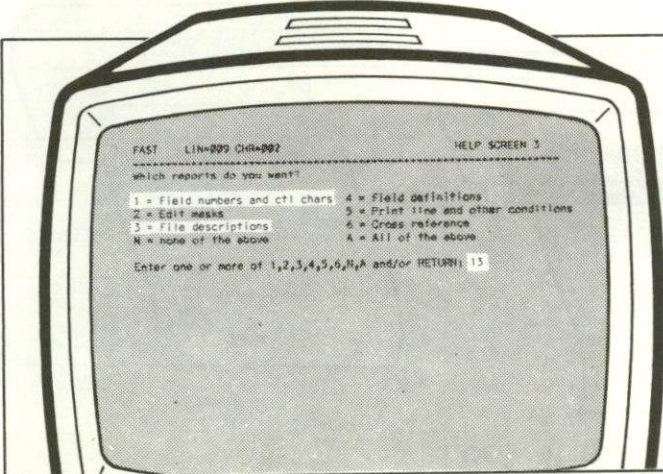
Chapter 8 tells you how to add a dollar sign to data that prints on a report.

14. PRINT A REPORT SPECIFICATION FILE LISTING

When you use REDIT, you can ask ReportStar to print a list of the instructions in the report specification file. If you have used FormGen, you may have used a similar feature.

You can ask for any of six listings, including field definitions, file descriptions, and the report layout form.

Be sure your printer is on and the paper is lined up correctly. (If you don't have a printer, you cannot print these listings.)



1. Ask for a report listing.

CTRL W

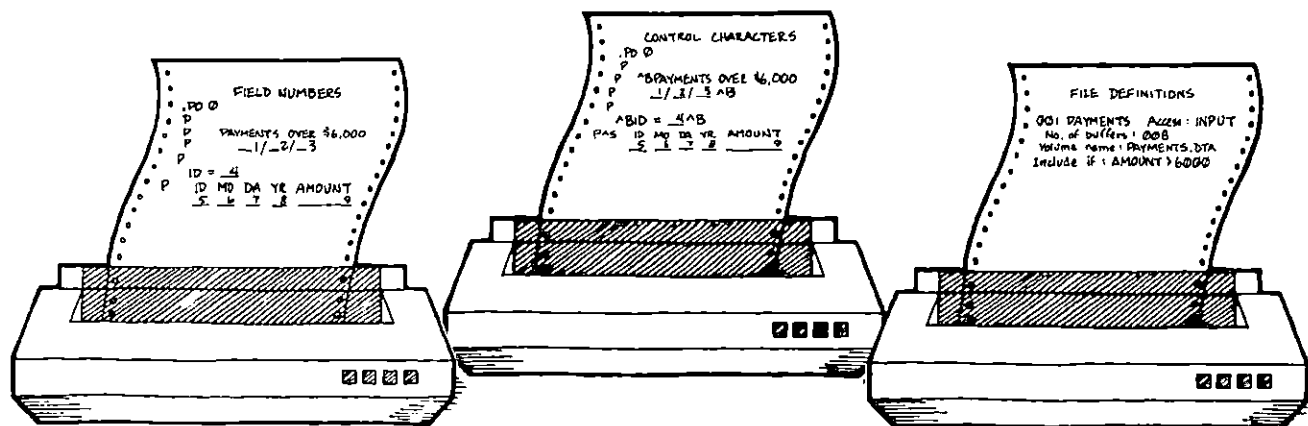
2. The screen message asks which reports you want. Ask for number 1 (field numbers and control characters) and number 3 (file descriptions).

TYPE 13

RETURN

Your listing will begin printing.

Behind the Screens Look at the Report Listing



As you look at the FAST REPORT LISTING, you will first see the layout screen with numbers added for each field in the report. This printout is labeled FIELD NUMBERS. The second listing, labeled CONTROL CHARACTERS, shows all the special effects commands on the layout screen and in the report specification file. You always get these two printouts when you ask for a number 1 report from the CTRL W menu. Asking for a number 1 report is the only way to print an image of the report form.

The second report you asked for, report number 3 on the menu, is labeled FILE DESCRIPTIONS. This report tells you that the first (and only) form definition file used for the FAST REPORT is PAYMENTS. PAYMENTS describes one datafile named PAYMENTS.DTA. Data will be input (i.e., put into the report) from this file only if a certain condition is met: the data in the amount field of a record must be greater than 6000.

You can ask for the listings for any report by calling up the specification file in REDIT, going to the Report Layout Screen, and pressing CTRL W.

15. GO TO THE EXIT SCREEN

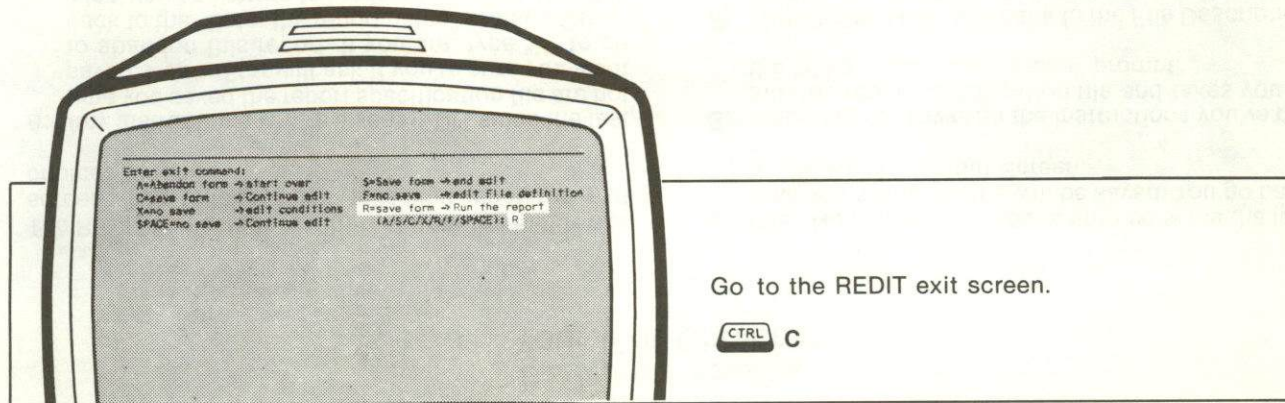
You just used the REDIT program to edit the FAST.RPT file you created with the Quick Report program. First, you looked at the File Description the Quick Report entered and you changed it by adding an "INCLUDE IF" condition.

Next you looked at the Report Layout Screen and its Help Screens. You learned about special effects and

nonprinting lines. Then, you changed the title of the report from FAST (entered by RGEN) to PAYMENTS OVER \$6,000.

You printed a report listing and looked at the layout form and file description.

Now, you are ready to go to the exit screen so you can ask ReportStar to run the report.



Behind the Screens Your Exit Choices

The REDIT exit screen is different from the RGEN exit screen. The following list tells you what the exit choices mean.

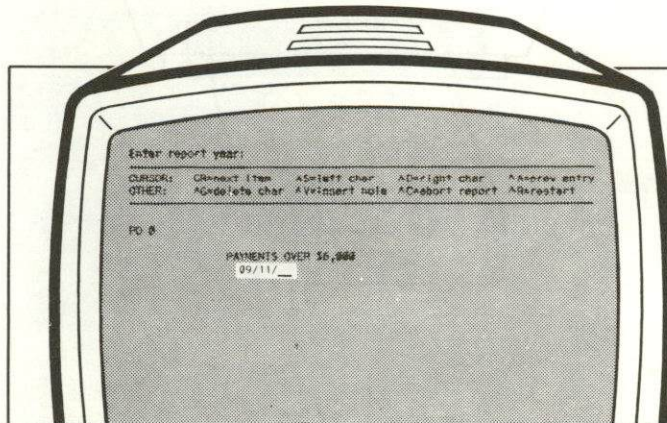
- A: Any instructions you've given REDIT since the last time you saved the report specification file are not saved. ReportStar will ask if you're sure you want to abandon this report. If you are, type "Y" to go back to the "Enter the report name" prompt. Otherwise, you can return to the layout screen. Use this option when you don't want to save the instructions you've entered.
- C: Selecting "C" saves the instructions you've put into the report specification file and allows you to continue. Use this choice to save your work as you go. It takes you back to the report layout screen.
- X: This choice allows you to specify special conditions (using logical expressions) to control when to end a page and/or the report.
- SPACE: No instructions you've entered since the last time you saved the file will be saved. You go back to the Report Layout Screen.
- S: Selecting "S" saves all the instructions you've put into the report specification file and takes you to the "Enter your report name" prompt.
- F: This choice takes you back to the File Description Screen. Any instructions you've put into the report specification file since you last saved the form (with C, S or R) will not be saved in the file although you can still look at them on the screen.
- R: This choice saves all the instructions you've put into the report specification file and calls up the REPORT program so you can run the report.

Saving the report file means that the instructions will be written onto your disk. If you continue without saving, the instructions you've entered are still available to be edited, saved, or abandoned.

16. SAVE AND RUN THE REPORT

Follow the instructions below to save and run the report. When you tell REDIT to run a report, you automatically go to the REPORT program.

Be sure your printer is on and the paper is lined up correctly.



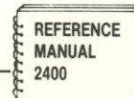
1. Save the file and run the report.
TYPE R

2. You have entered the REPORT program. Ask for the report to be printed.
RETURN

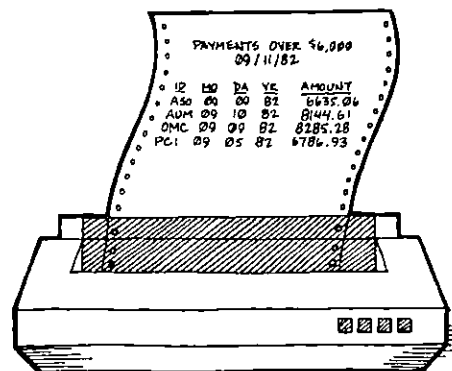
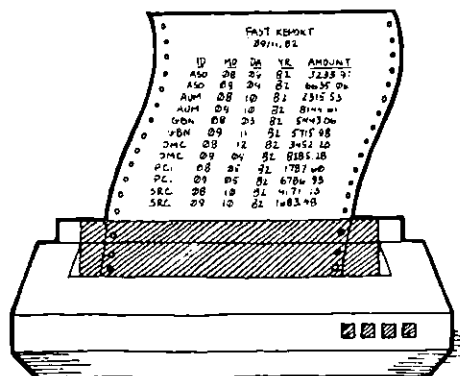
3. Now type in the date.
TYPE 09 11 82
(Or any month, day, and year you want.)

If you do not have a printer, a message may appear that asks if the existing ".PRN" file should be written over. Simply press RETURN to continue.

The Quick Report always includes fields for the date when the report is run.



Look at What You've Done



Notice the difference between the FAST report from Chapter 1 and the report you created in this chapter. Only the customer records with payment amounts over \$6,000 have been included, and the title has changed.

A Quick Review

1. The REDIT program allows you to look at or change Quick Reports . . . or to create reports entirely from scratch.
2. You must describe each file used in a report. You enter a File Description by answering a series of questions called prompts. You may do this yourself in REDIT or have RGEN do it for you automatically. In this report, you have used both techniques. You changed a file description entered automatically by RGEN for the FAST.RPT.

You can use CTRL J at any prompt for onscreen help. Reference Manual procedure numbers displayed with the Help Messages help you locate more information about the prompt.

3. A File Description must include the name of a form definition file and the names of the datafiles you want to use.
4. You can ask that only certain records be included in a report by using the INCLUDE IF feature in File Description.

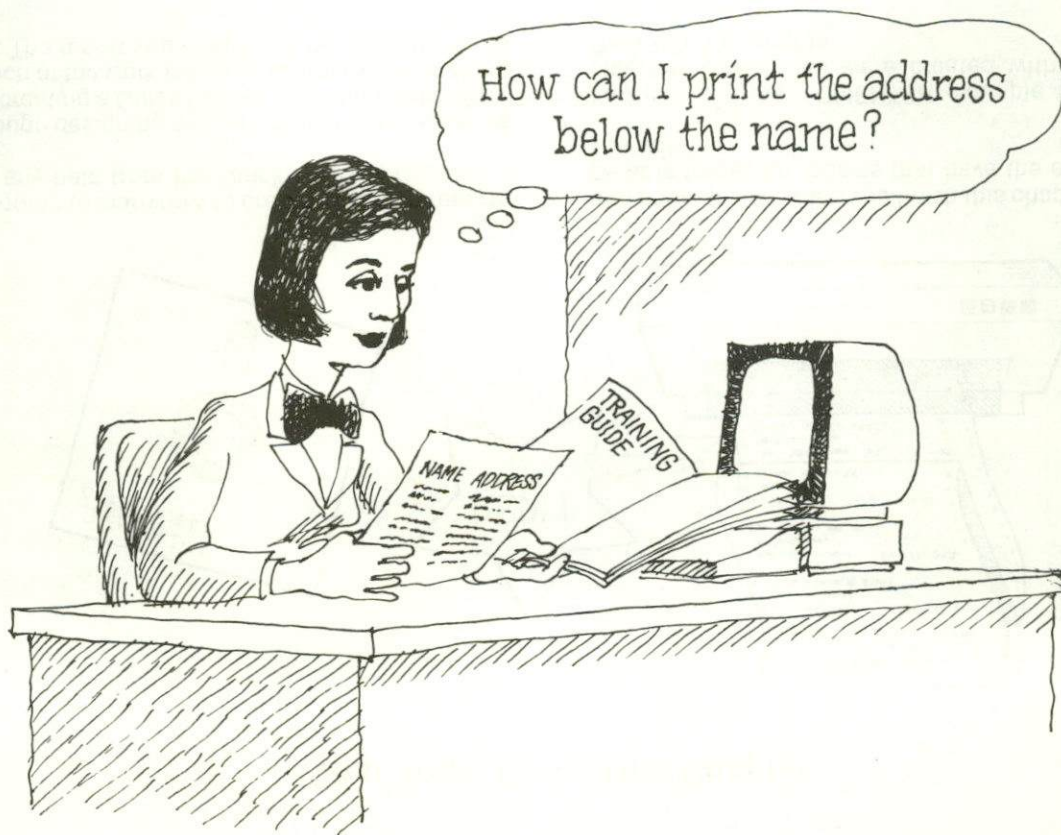
5. The Report Layout Screen shows you an image of the report form, including special effects that control printing. There are four Help Screens for the Report Layout Screen. You can move from one Help Screen to the next by toggling CTRL J. The status line at the top of the screen shows where the cursor is positioned.
6. Fields where data will be placed in the report are marked with underlines. When these fields are used for control breaks, they are marked with asterisks.
7. You must enter a code in the print control column of each line on the report layout to tell ReportStar when to print the line. The following codes were used in the FAST report: "." for nonprinting lines, "P" to print lines once per page, and SPACE to ask for the data lines to print once for each record.
8. You can change the report title or any background text on a report by typing the changes on the Report Layout Screen. The report specification file name is not changed by changing the title.
9. You can request a report specification file listing by entering the CTRL W command at the Report Layout Screen.

CHAPTER 7

Designing Your Own Report

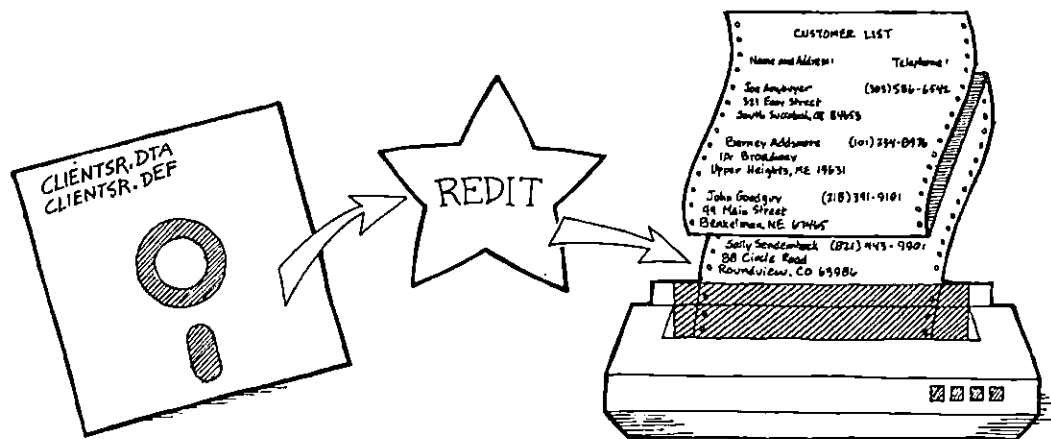
CHAPTER CONTENTS

What You'll Do In This Chapter	7-4	9. LOOK AT THE STATUS LINE.....	7-13
1. CALL UP REDIT AND NAME THE REPORT SPECIFICATION FILE	7-5	10. DRAW SIX MORE FIELDS ONTO THE LAYOUT SCREEN.....	7-14
2. ENTER THE FORM DEFINITION FILE NAME	7-6	11. ENTER THE NUMBER AND NAME THE FIRST FIELD	7-15
3. DESCRIBE THE FILE	7-7	12. DEFINE THE FIELD	7-16
4. SAVE WHAT YOU'VE DONE SO FAR AND CONTINUE	7-8	13. DEFINE THE SECOND FIELD.....	7-17
5. GIVE THE REPORT A TITLE	7-9	14. DEFINE THE REMAINING FIVE FIELDS	7-18
6. LOOK THROUGH THE WINDOW	7-10	15. CHANGE THE PRINT CONTROL COMMANDS	7-19
7. MOVE THE WINDOW AGAIN; THEN TYPE A FIELD LABEL	7-11	16. RUN THE REPORT	7-20
8. DRAW THE FIRST FIELD.....	7-12	17. EDIT THE FIELD DEFINITION FOR REPORT CITIES	7-22
		How Flexible is REDIT? Try	
		Some Special Effects	7-23
		A Quick Review	7-24



When you use the REDIT program in ReportStar, you can design the exact report you want.

What You'll Do In This Chapter



You are going to learn how to create your own reports without any help from the Quick Report program.

Even though designing a report in REDIT isn't quite as easy as creating a Quick Report, you'll find ReportStar does much of the work for you and provides help along the way. The report you create will be a simple name

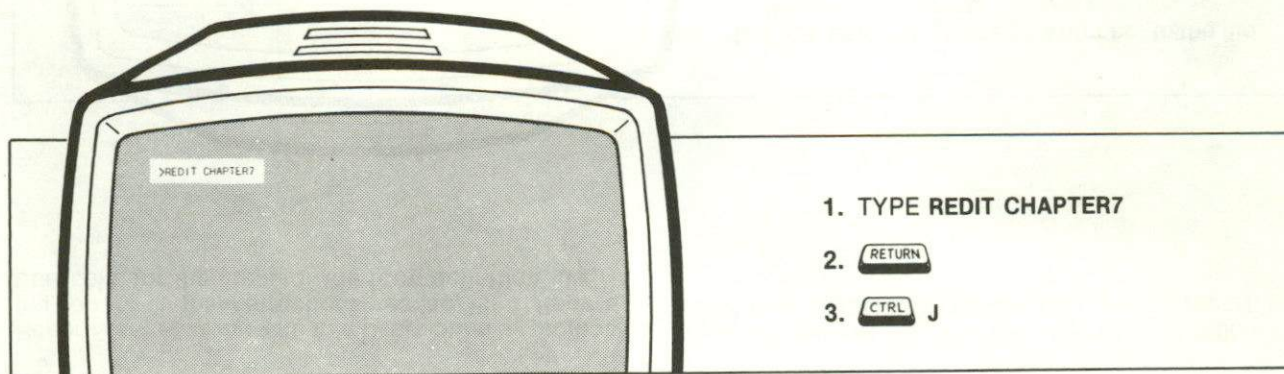
and address list. When you finish this chapter, you will be able to design reports that have the exact layout you want.

You will use the CLIENTSR example files in this chapter. These files were created with MicroPro's DataStar 1.4 program.

1. CALL UP REDIT AND NAME THE REPORT SPECIFICATION FILE

Take a short cut past the "enter your report name" prompt by calling up REDIT and typing the name for your report specification file at the operating system

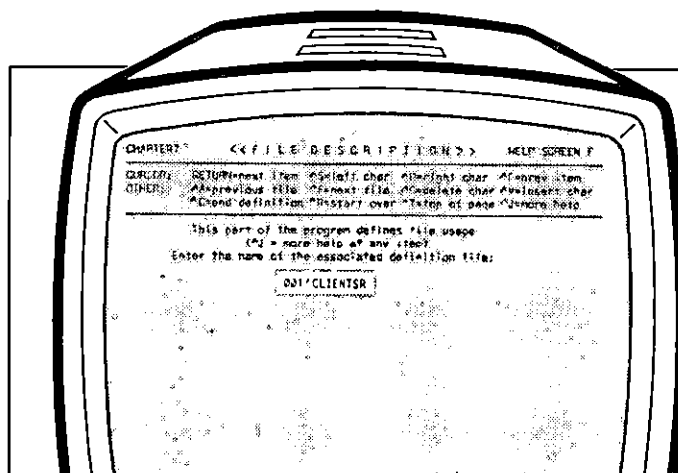
prompt. You'll see Help Screen 4, which introduces REDIT. Then, press CTRL J to call up the File Description Screen.



2. ENTER THE FORM DEFINITION FILE NAME

ReportStar helps you with File Description by prompting you for all the instructions needed. First, ReportStar asks for the name of the form definition file.

You will use the CLIENTSR.DEF form definition file and the CLIENTSR.DTA datafile for this report.



1. First, enter 001 to assign a number to the file you are describing.

RETURN

2. Type the form definition file name and enter this name into the report specification.

TYPE CLIENTSR

Because this file name has eight characters, ReportStar takes you to the next prompt.

This report will use only one datafile (with its associated form definition file). The file name cannot be longer than eight characters. Do not type the extension ".DEF."

If a file name has fewer than eight characters, you must press RETURN to enter the file name and go to the next prompt.

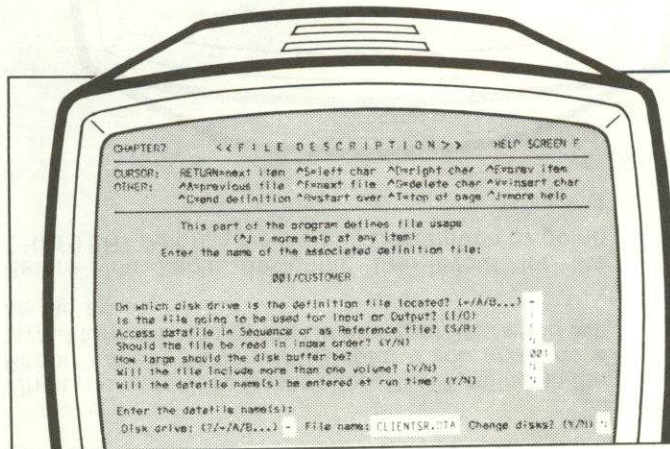
3. DESCRIBE THE FILE

ReportStar makes it easy to describe a file for your report. An answer to each question is on the screen already. These answers are called "defaults." Unless you want to change the default, simply press RETURN and the answer you see will be entered.

When your datafile and form definition file use the same name, all you will have to do is press RETURN to enter the datafile name, and press RETURN again to enter the .DTA extension. ReportStar uses the form

definition file name, adds the .DTA extension, and displays the name for you.

The File Description you will enter is exactly the same File Description the Quick Report would give for a report specification file, with one exception. The Quick Report automatically assigns 8 sectors of memory to the disk buffer; the REDIT default is 1 sector. Remember, CTRL J will give you more information at each prompt.



1. If the CLIENTSR form definition file and datafile are on the logged disk, you can simply enter the default answers. If not, see the footnote below.

RETURN at each prompt.

2. When you have completed the description for CLIENTSR, ReportStar will ask for the name of a second file by displaying 002/_____. Since you will not describe a second file, end File Description.

CTRL C

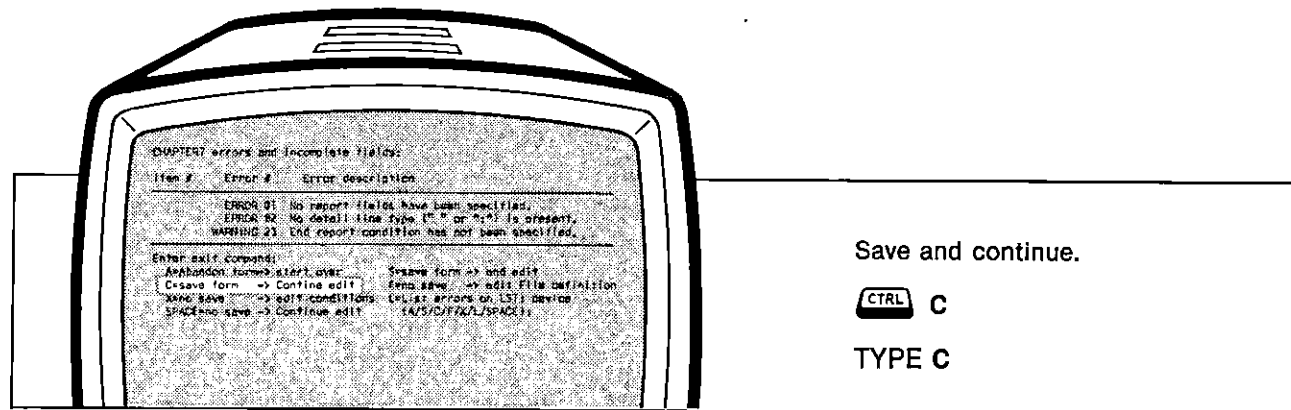
If the CUSTOMER form definition file is not on the disk in the logged disk drive, enter the code for the correct disk drive at the prompt that asks, "On which disk drive is the definition file located?" If the CUSTOMER.DTA datafile is not on the disk in the logged disk drive, enter a letter for the correct disk drive at the prompt that asks, "Disk drive:".

4. SAVE WHAT YOU'VE DONE SO FAR AND CONTINUE

When you ended File Description, REDIT called up the Report Layout Screen. In Chapter 6 you changed a layout form created by the Quick Report. Now you will be the artist.

Before you begin designing the layout for the CHAPTER7 report, save the File Description by going

to the exit screen and choosing "C" to save the file and continue. When you do, ReportStar gives you three messages: two error messages that say no detail line is present and that you have not yet specified any report fields, and a warning that you have not yet specified when the report is to end.



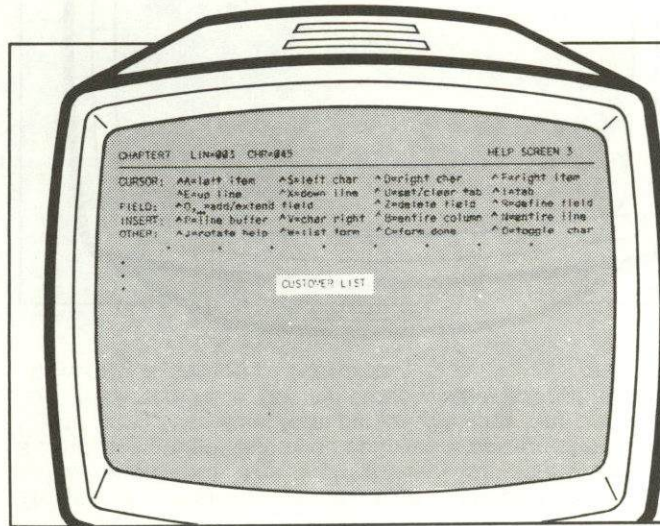
The reference manual explains error and warning messages separately for each program, RGEN, REDIT, and REPORT.

5. GIVE THE REPORT A TITLE

You can now “draw” the report form for the CHAPTER7 report. Use the cursor control commands in the Help Screen Menu to move the cursor; then look at the status line at the top of the screen to find out where

the cursor is. The status line tells you at which line (LIN =) and character (CHR =) the cursor is positioned.

Begin by typing a report title on the screen. The title, “Customer List,” will be on the third line.



1. Put the cursor on the third line.

RETURN twice

Look at the status line to be sure the cursor is in LIN = 003.

2. The title will begin at character 32 (CHR = 032). Since there aren't any characters on line 003, you must use the SPACE BAR to move the cursor to CHR = 032.

SPACE BAR

until the status line shows the cursor is in CHR = 32.

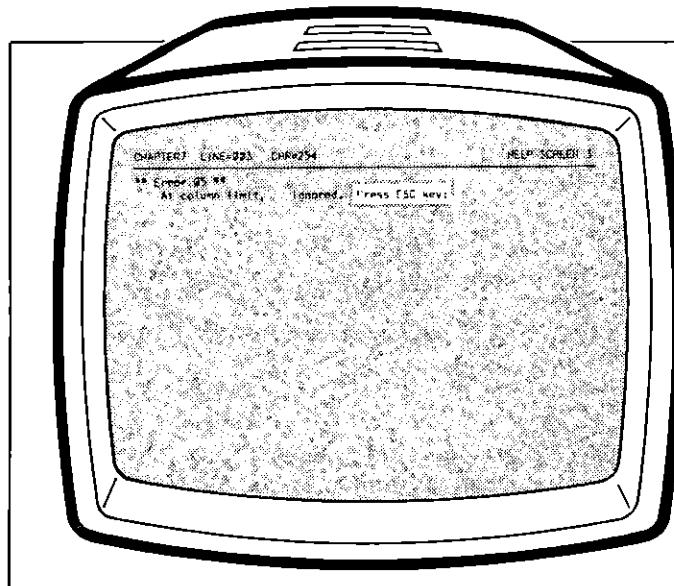
TYPE CUSTOMER LIST

This report will print with the title “CUSTOMER LIST.” The name of the report specification file is CHAPTER7.RPT.

6. LOOK THROUGH THE WINDOW

The layout screen you see is only a small part of the actual layout form. You might think of this screen as a window through which you can view a portion of the layout form. The layout form can be 255 lines long and 254 characters wide, but the screen is big enough to show only a portion of that area.

If you type beyond the right-hand boundary of your terminal screen, the "window" will move to the right, allowing you to view other portions of the report layout. If you add lines to the report form, the "window" will move down.



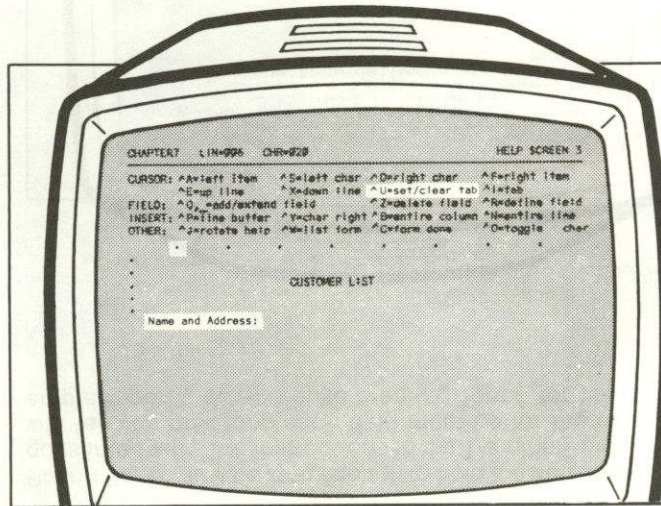
1. The cursor is in CHR = 045.
2. Look at what happens when you use CTRL D to move right. **CTRL D**
3. Move the cursor out of the print control column and back to the end of the report title.
CTRL D **CTRL E** **CTRL F** twice
CTRL D four times
4. Enter "space" characters to move the "window."
SPACE BAR until the cursor is in CHR = 254.
SPACE BAR again.
The message tells you that this is the column limit and that the last space character you entered has been ignored. (A column is one character wide.)
5. Move back to CHR = 001. **ESC** **RETURN**

Commands to move the cursor to the left or right work only when you have characters on the line.

When there are no characters to the right of the last item on a line, CTRL D (or CTRL F) moves the cursor into the print control column on the next line. CTRL D moves the cursor out of the print control column.

7. MOVE THE WINDOW AGAIN; THEN TYPE A FIELD LABEL

Now set a tab stop and type the first field label. Tab stops are represented by dots which are displayed on a horizontal line just beneath the Help Menu.



1. Move the cursor to the third character in the sixth line.

RETURN two times
SPACE BAR twice

2. Check the status line to be sure the cursor is in LIN = 006, CHR = 003.

3. Set a tab stop at this position.

CTRL **U**

Notice that a dot appears in the third character position on the tab stop line.

4. Type the field label.
TYPE Name and Address:

ReportStar uses some WordStar and DataStar cursor commands, but you should note that some ReportStar commands are unique.

Remember that the SPACE BAR enters the character "space." Even though the space character is invisible to you, the computer "sees" it and puts it on the layout form just as it does any other character you type. Always use cursor control commands, not the SPACE BAR, to move the cursor across characters you want to remain on the screen. If you press the SPACE BAR, you *replace* those characters with blank spaces.

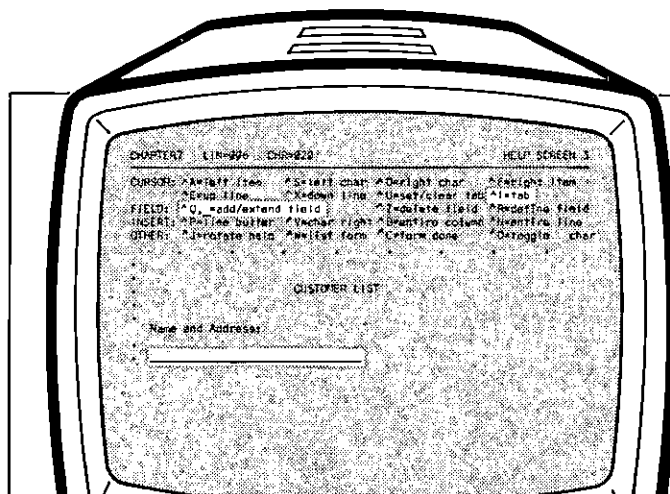
8. DRAW THE FIRST FIELD

To tell ReportStar where you want each field, simply draw underlines. (Drawing a report layout is similar to drawing a form in FormGen.)

Report fields must be long enough to hold the data that goes into them. The instructions in the Training Guide will tell you how long each field must be for the example reports. When you're creating forms for *your*

data, you can use the CTRL W listing from DataStar to check field lengths (or look at the entry form in FormGen).

You can put field labels anywhere you want — above, below, to the right or left of the fields — or leave them out entirely. Now draw a 25 character field beneath the label.



1. Move the cursor to the beginning of line 8 (LIN = 008).

RETURN twice

2. Use a tab to move the cursor to character 3.

CTRL I

Check the status line to be sure the cursor is in LIN = 008, CHR = 003.

3. Draw a 25 character field.

CTRL Q 25 times

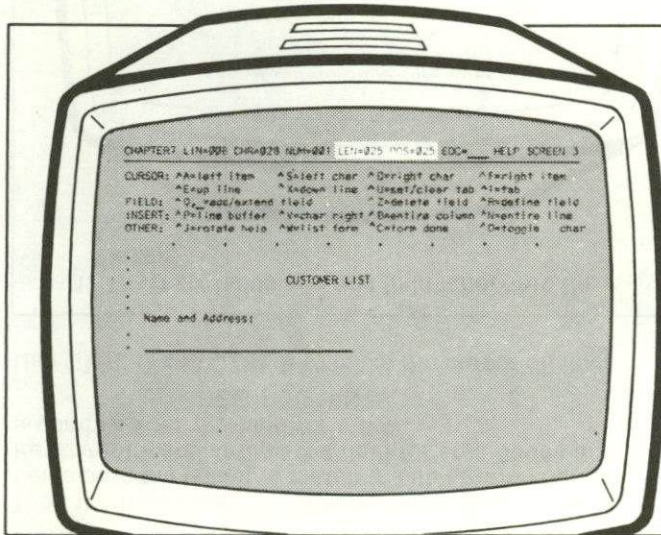
You can type underlines instead of using CTRL Q to draw fields.

9. LOOK AT THE STATUS LINE

When you move the cursor into a field, the status line will show you the field number (NUM =), the length of the field (LEN =), and the position of the cursor in the field (POS =). It also tells you what edit mask has been

entered for this position (EDC =). (You will learn about edit masks in Chapter 8.)

Now check the field length for the field you drew.



1. Move the cursor into the field. **CTRL S**
2. The status line should show that the length of this field is 25 characters (NUM = 001, LEN = 025).

Too short? Add more underlines with **CTRL Q** or by typing underlines onto the screen.

Too long? Use **CTRL G** to remove characters under the cursor or **DEL** to delete characters to the left of the cursor.

3. When the status line shows that this field is 25 characters long, you can save the form and continue.

CTRL C
TYPE C

ReportStar automatically numbers report fields beginning with 001 at the top left of the layout screen, moving left to right, line by line, and ending with the last report field on the right of the last line. When you add or delete report fields, ReportStar automatically rennumbers all the report fields after the field you added or deleted. You can change the report field numbers in Field Definition.

The report field number determines the order in which data will be put into the report fields. Data will be put into field 001 first, then into field 002, and so on until all fields are filled.

10. DRAW SIX MORE FIELDS ONTO THE LAYOUT SCREEN

The next six fields you draw will be used for area codes, telephone numbers, addresses, cities, state abbreviations, and zip codes.

Type the field label, "Telephone:" and draw six more fields onto the layout to match the illustration below. Put parentheses around the field for area codes and a comma after the field for cities.

HELPFUL HINTS:

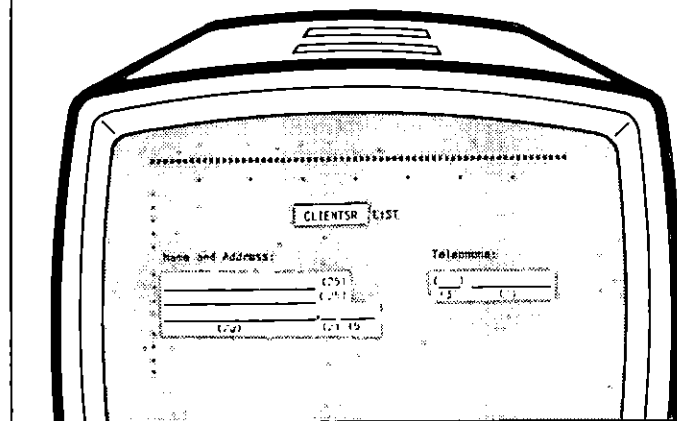
Use CTRL D and CTRL S to move the cursor on lines

with characters and to move the cursor in and out of fields. (Do not use the SPACE BAR or you will replace characters with blanks. Use the SPACE BAR to add blank characters to a line.)

Use CTRL E to move up a line and CTRL X to move down a line.

The numbers in parentheses in the illustration show you how long each field must be. *Do not type the numbers in parentheses onto your screen.*

1. Draw six fields and one field label onto the layout.



2. Position the cursor in the first field. The status line should show LIN=008, NUM=001, LEN=025.
3. Move the cursor right one item and check field 002. **CTRL F**

The status line should show LIN=008, LEN=003.

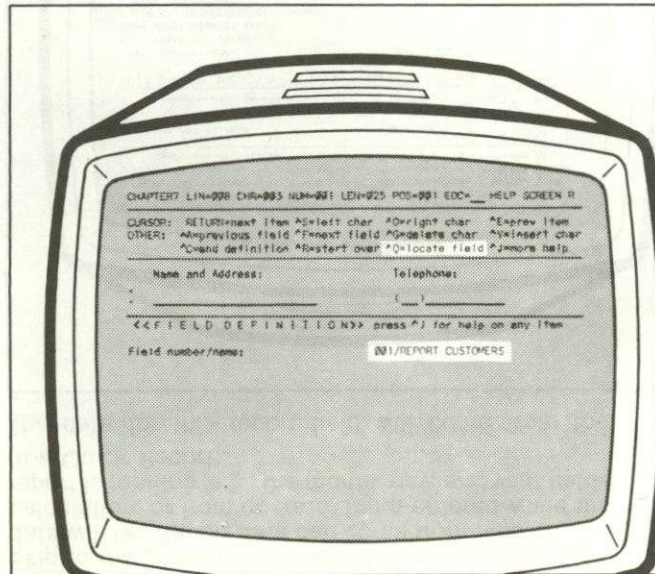
4. Check the remaining fields:
003: LIN=008, LEN=008
004: LIN=009, LEN=025
005: LIN=010, LEN=020
006: LIN=010, LEN=002
007: LIN=010, LEN=005
5. If the fields are not on the correct lines or are not the right length, see the footnote below.

You can erase everything you added since the last time you SAVED the report specification file. Press CTRL C, type A, then Y. At the "Please enter your report name" message, type CHAPTER7, press RETURN, then press CTRL C. You'll see the report layout form with just the report title, field label, and field number 001.

11. ENTER THE NUMBER AND NAME THE FIRST FIELD

Defining a field in REDIT is similar to describing a file. REDIT prompts you with all the questions to be answered for a complete report specification file. You

will often see default answers on the screen and you'll just press RETURN to enter them. Enter the field number, then give this report field a name.



1. Move the cursor into the first field, NUM = 001.
(Remember that CTRL A moves the cursor left one item.)
2. Call up the Field Definition Screen. **CTRL R**
Notice that the Help Screen is now labeled, "HELP SCREEN R."
3. Locate the field on the screen. **CTRL Q**
The cursor will move to the field.
4. Return to Field Definition. **RETURN**
5. Enter the field number, 001. **RETURN**
6. Type in a field name.
TYPE REPORT CUSTOMERS
7. Enter the name. **RETURN**

Typing mistake? You can backspace (or use CTRL G to delete characters) and then retype.
Press CTRL J at any prompt for more information and Reference Manual Procedure Numbers.
A report field name can be up to 32 characters long.

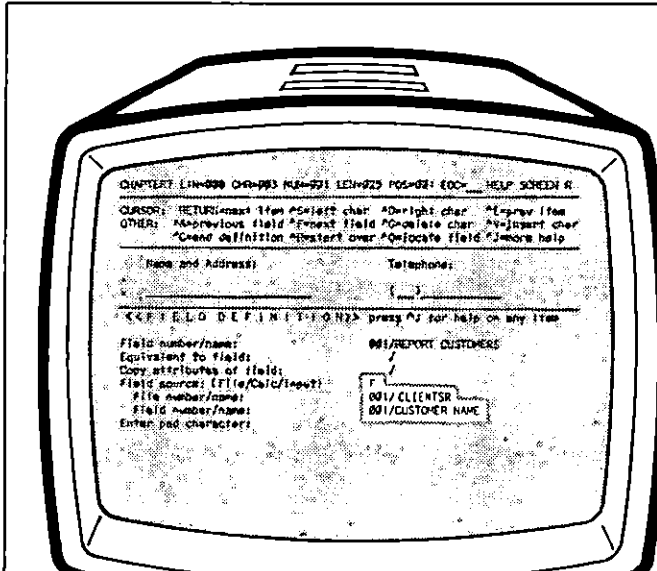
12. DEFINE THE FIELD

Skip to the prompt that asks what the source of the data will be. Report data can come from files, from a calculation, or from operator input entered while the report is running (e.g., the month, day, and year fields in a Quick Report).

The data for this report field will come from the

CLIENTSR file. The CUSTOMER NAME field in this file has the data for this report field.

That's all you will do to define this field. ReportStar automatically enters answers for the remaining prompts, so you can go on to the next report field.



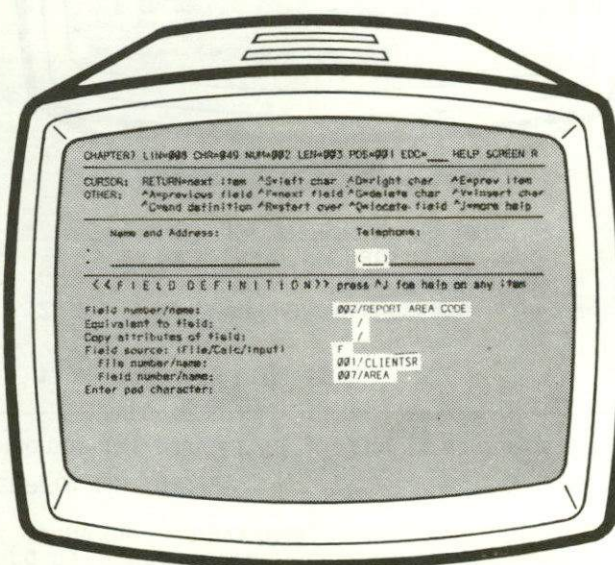
1. Skip the "equivalent to" and "copy attributes" prompts, and go to the "Field source" prompt. **RETURN** four times
2. Enter the answer "F" to say the data will come from a file. **RETURN**
3. Tell ReportStar which file has the data for this report field. TYPE 001
4. ReportStar displays the file name, CLIENTSR, on the screen. Enter this name. **RETURN**
5. Tell ReportStar which field stores the data for this report field. **RETURN**
TYPE CUSTOMER NAME **RETURN**
ReportStar automatically enters the field number for you.

ReportStar makes it easy to enter datafile and datafield names and numbers. If you enter a name, ReportStar will display its number; if you enter a number, ReportStar will display its name. Always press RETURN to enter the answer displayed. The next chapter will explain how to use more prompts to define fields and to change the answers ReportStar automatically enters for you.

13. DEFINE THE SECOND FIELD

Leave the answer on the screen for the prompt "Pad character" for field 001 and move on to field 002.

The data for all of the report fields will be from the CLIENTSR file, file number 001. The second report field will print data from the datafile field named AREA CODE.



CHAPTER7 LIN=000 CHR=040 NUM=002 LEN=003 POS=001 EDC= HELP SCREEN 8

CURSOR: RETURN=next item ^S=left char ^D=right char ^E=prev item
OTHER: ^A=previous field ^F=next field ^C=delete char ^V=insert char
^O=and definition ^R=reset over ^W=delete field ^J=more help

Name and Address: Telephone:

<<FIELD DEFINITION>> press ^J for help on any item

Field number/name: 002/REPORT AREA CODE
Equivalent to field:
Copy attributes of field:
Field source: (file/calc/input) F
File number/name: 001/CLIENTSR
Field number/name: 007/AREA
Enter pad characters:

1. Move the cursor to the next field, NUM = 002.
CTRL F
2. Enter the report field number. **RETURN**
3. Enter the report field name.
TYPE REPORT AREA CODE RETURN
4. Go to the Field Source prompt.
RETURN four times
5. Enter Field Source "F." **RETURN**
6. Enter the file number.
TYPE 001
7. Enter the datafile name. **RETURN**
8. Skip to data field name. **RETURN**
9. Enter the data field name.
TYPE AREA RETURN

Remember, you can save your work with CTRL C, CTRL C.

REFERENCE
MANUAL
2300, 2340,
2341, 2342

14. DEFINE THE REMAINING FIVE FIELDS

Using the information in the illustration box below, you will define the next five fields on your own.

HELPFUL HINTS:

Remember to press RETURN to *enter* the source data

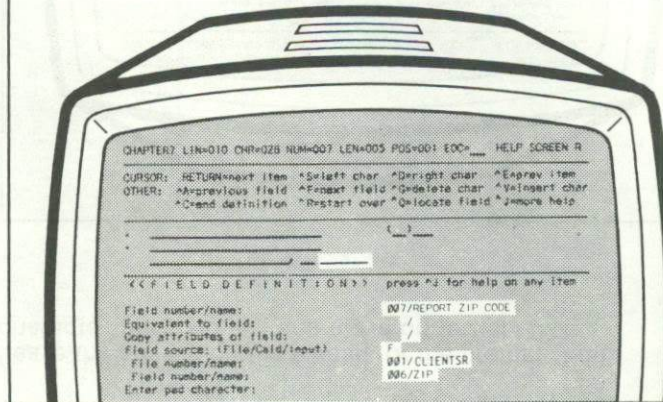
field name. You'll see the prompt, "Pad character." Then go on to the next field.

While you're defining a field, you can locate it on the layout by pressing CTRL Q. Press RETURN, or any character, to go back to the Field Definition prompts.

1. Move to field NUM = 003.

CTRL F

2. The following list tells you the name to give each report field and the source data field names for each. All the data for this report comes from the CLIENTSR file, 001.



Report field NUM = 003
Report field name: REPORT TELEPHONE
Source data field name: PHONE

Report field NUM = 004
Report field name: REPORT STREET
Source data field name: ADDRESS

Report field NUM = 005
Report field name: REPORT CITIES
Source data field name: CITY

Report field NUM = 006
Report field name: REPORT STATES
Source data field name: STATE

Report field NUM = 007
Report field name: REPORT ZIP CODES
Source data field name: ZIP

3. After you have pressed RETURN to enter the source data (006/ZIP) for the last report field (007/REPORT ZIP CODES), end Field Definition. **CTRL C**

You don't have to name fields to define them, but it's a good habit to develop. It's also a good idea to make sure the report field names are different from the data field names. Using the word "REPORT" in the field name is one way to make the distinction clear.

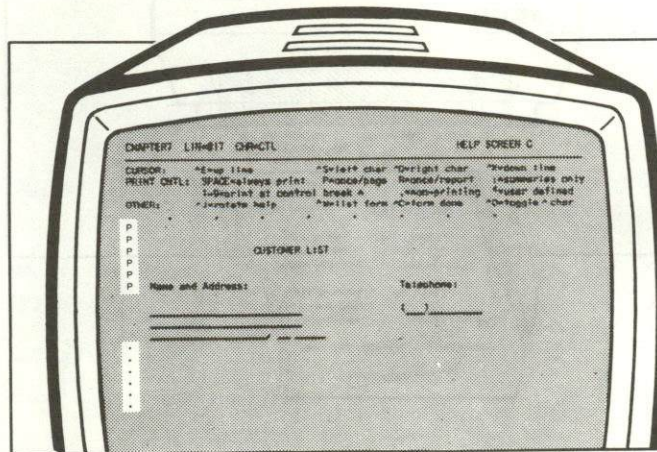
15. CHANGE THE PRINT CONTROL COMMANDS

The print control column is filled with dots. Because dot commands tell ReportStar not to print lines, you must change the commands if you want any lines to print.

Use the command "P" on the first seven lines to print these lines once at the top of the page.

The print control command "Space" tells ReportStar to "always" print the detail lines. REPORT prints detail lines once for each record used in a report. You will also use the "space" command to print a blank line after each record.

Since this report has no footer, leave the nonprinting line command (.) after the detail lines.



1. Move the cursor to LIN = 001.
2. Move the cursor into the print control column.

CTRL S

3. Enter the following print control commands:

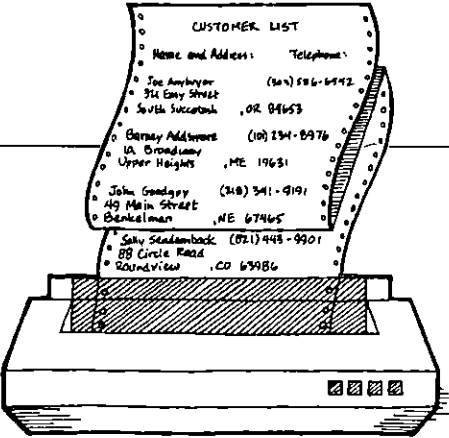
LIN = 001 to LIN = 006: P
LIN = 007 to LIN = 011: (space)

Your screen should look like the illustration.

Each report must have a detail line. Chapter 8 shows you how to use another command (;) to specify detail lines.

The command "R" can be used to print heading or footing lines once per report. If you have a report heading and a page heading, the page heading will not print on the first page. Report heading and footer commands must be in a specific order in the print control column (e.g. "RP (space) RP").

16. RUN THE REPORT



A hand-drawn illustration of a dot-matrix printer printing a report titled "CUSTOMER LIST". The report is on a continuous roll of paper and contains a table with three columns: "Name and Address", "Telephone", and "City". The data rows are as follows:

Name and Address	Telephone	City
Joe Ambryer 314 Elm Street South Succotash	(603) 586-6442	OR 84653
Barney Addams 1A Broadway Upper Heights	(603) 234-0976	ME 19631
John Goodguy 49 Main Street Bancroft	(603) 341-9191	NE 67465
Sally Seabrook 88 Circle Road Roundview	(603) 445-9901	CO 69486

To the right of the printer, there are three numbered steps for running the report:

1. Go to the exit screen.
CTRL C
2. Save the form and run the report.
TYPE R
3. Ask for the report to be printed.
RETURN

Congratulations! You have created your first report specification file without help from the Quick Report.

Your report should look like the illustration above.

Since this report has no fields for data to be entered while the report is running (operator input fields), the report begins printing as soon as you press RETURN.

The Quick Report always includes three operator-entered fields with prompts that tell you to enter the month in the first field, day in the second field, and year in the third field.



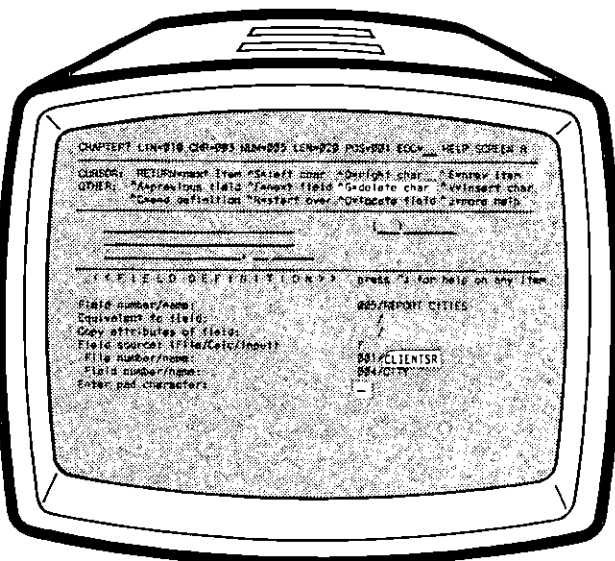
17. EDIT THE FIELD DEFINITION FOR REPORT CITIES

You will change the report specification so the comma will print immediately after the REPORT CITIES data.

REDIT entered a SPACE pad character in the Field Definition for the REPORT CITIES field. When the data

for this field is shorter than the report field length, the report field is filled with spaces.

Remove the pad character (space) REDIT entered by using CTRL G (delete).

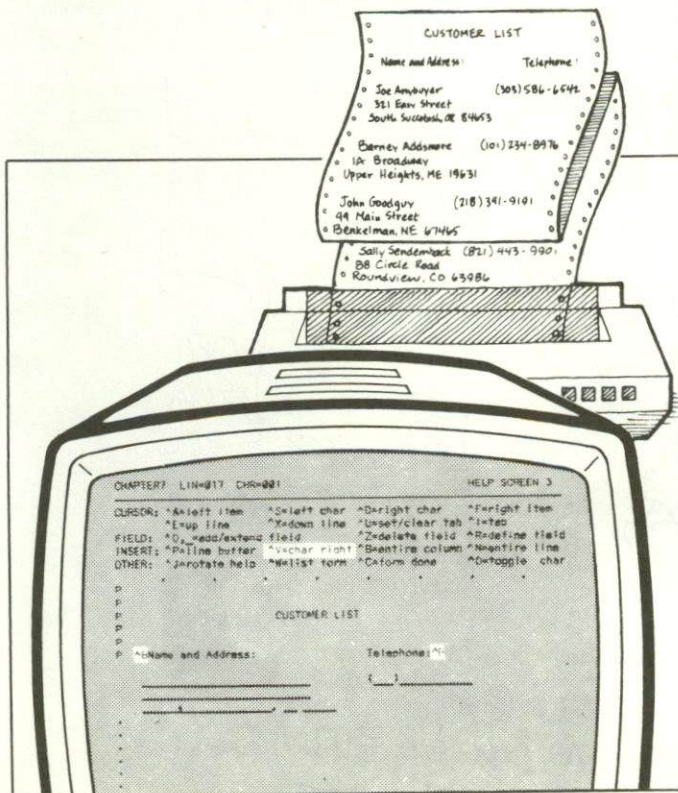


- 1 Call up the CHAPTER7 report specification file in REDIT.
2. Go to the Report Layout Screen.
CTRL C
3. Move the cursor into the REPORT CITIES field, NUM = 005.
4. Call up Field Definition.
CTRL R
5. Go to the "Enter pad character prompt."
RETURN until you see the prompt.
6. Delete the pad character (space).
CTRL G **RETURN**
7. End Field Definition and go to the exit screen.
CTRL C twice
8. Save the form and Run the report.
TYPE R **RETURN**

REFERENCE
MANUAL
2351

You can pad a field with any character you want.

How Flexible is REDIT? Try Some Special Effects.



Now edit the CHAPTER7 report to print the field labels boldfaced.

The CTRL V command allows you to insert characters and print commands onto the report layout.

1. Call up the CHAPTER7 report specification file in REDIT and go to the Report Layout Screen.

2. Position the cursor in LIN = 006, CHR = 002.

3. Call up the Print Control Character Menu.

CTRL V

4. Enter the command to mark where you want boldfacing to begin.

CTRL B

You'll see the mark, "**^B**," appear on the screen to the left of "Name."

5. Position the cursor after "Telephone:."

6. Mark where you want boldfacing to end.

CTRL V **CTRL B**

You will see another "**^B**" appear on the screen. This command tells ReportStar when to stop boldfacing.

7. Go to the exit screen, save the file, and run the report.



A Quick Review

1. You must describe each file you will use in a report. You can press RETURN to enter the default answers or enter other answers.
2. You can save, abandon, continue, or exit by pressing CTRL C until you see the exit screen, then choosing what you want to do.
3. The Report Layout Screen is a window to a much larger layout form. You can draw fields, type titles, labels, comments, column headings — anything you want — wherever you want it.
4. You draw fields by using the underline key or CTRL Q. Use the field length from the form definition file to be sure the report fields are long enough to hold the data.
5. Fields are defined by answering onscreen prompts. As in File Description, default answers can be entered by pressing RETURN. However, you will have to provide information about the source of each field.
6. REDIT automatically pads report fields with spaces. You can use any character to pad fields, or you can use CTRL G to delete the default space character.
7. Ask for special effects such as boldfacing, subscripting, underlining, etc., by using CTRL V to insert special effects commands.

CHAPTER 8

Adding to a Quick Report

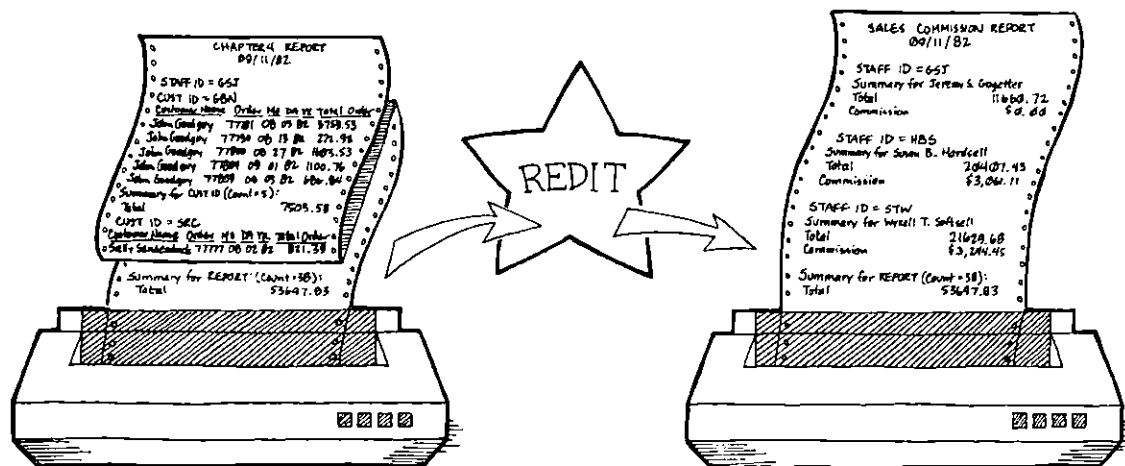
CHAPTER CONTENTS

What You'll Do in This Chapter	8-4
BEFORE YOU BEGIN	8-5
The Example Files You'll Use	8-6
1. ADD A SECOND FILE TO THE CHAPTER8 REPORT	8-7
2. ENTER THE FILE DESCRIPTION	8-8
3. ADD A REPORT FIELD FOR SALESPERSON NAMES	8-9
4. NAME THE REPORT FIELD AND DEFINE THE SOURCE	8-10
5. TELL REPORTSTAR WHICH REPORT FIELD HAS THE KEY DATA	8-11
Look at What You've Done	8-12
6. CHANGE THE REPORT TITLE	8-13
<i>Behind the Screens</i>	
Comparing the Report Layout to the CHAPTER8 REPORT	8-14
7. CHANGE THE PRINT CONTROL COMMANDS	8-15
Look at What You've Done	8-16
8. LOOK AT THE FIELD DEFINITION FOR STAFF ID	8-17
9. LOOK AT THE TOT1 TOTAL ORDER FIELD DEFINITION	8-18
10. LOOK AT THE EDIT MASK	8-19
11. DATA IN AND DATA OUT	8-20
12. ADD A REPORT FIELD TO CALCULATE SALES COMMISSIONS	8-21
13. CALCULATE THE COMMISSION	8-22
14. PRINT THE COMMISSION DATA WITH AN EDIT MASK	8-23
15. ENTER THE "LOAD WHEN" CONDITION	8-24
16. ENTER THE "CLEAR IF" CONDITION ...	8-25
17. CORRECT A WARNING AND RUN THE REPORT	8-26
Look At What You've Done	8-27
How Flexible is REDIT? Try One Last Report	8-28



You can add data from a second file to a Quick Report and ask ReportStar to calculate data for you.

What You'll Do in This Chapter



The instructions in this chapter will show you how to make three changes to the Quick Report you created in Chapter 4.

First you will create a report that uses data from a second file. Then you will change this report to print only summaries of the data. Third, you will add a report

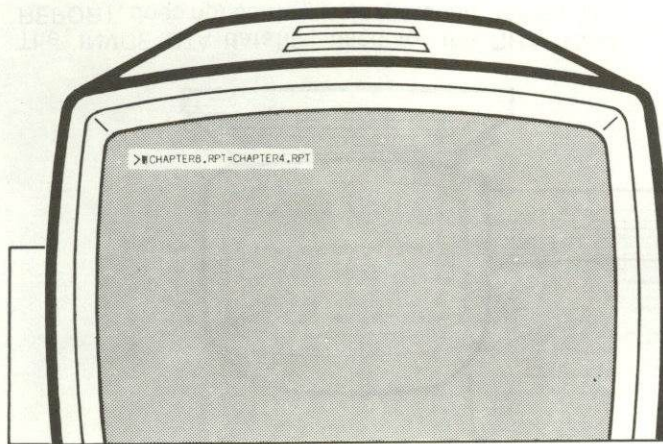
field that calculates a percentage. A short review, "Look at What You've Done," follows each change.

This is the last chapter in the Training Guide. A final review of the entire guide includes some Helpful Hints for using ReportStar for your own applications.

BEFORE YOU BEGIN

In this chapter, you will copy and rename the CHAPTER4 REPORT so you can edit the copy.

Remember, you can run any report you've created by simply calling up the REPORT program and typing the report name.



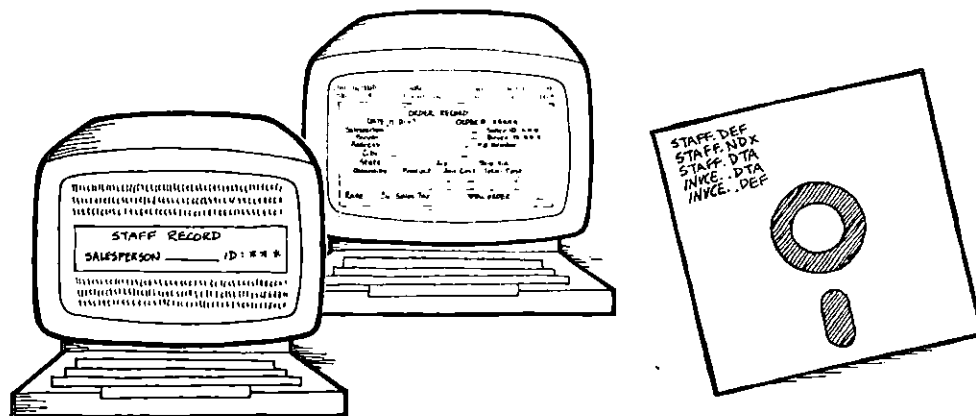
Use your operating system commands to make a copy of the CHAPTER4.RPT file and rename it CHAPTER8.RPT.

When you finish, you should have a report specification file named CHAPTER4.RPT and a duplicate file named CHAPTER8.RPT.

Having trouble? If you don't remember how to copy and rename files, see the instructions in your operating system manual.

If you did not create the CHAPTER4.RPT report specification file, do so before you continue with Chapter 8.

The Example Files You'll Use



The INVC.DTA datafile, used for the CHAPTER4 REPORT, does not contain salespersons' names. The NAME field in STAFF.DTA is the only place in the example datafiles where these names are stored. To print the names on the report, you must add STAFF.DTA to your report specification.

You want ReportStar to select particular records from STAFF.DTA; so this file will be accessed as a reference file. To do this, the index file, STAFF.NDX, must be on the same disk as the datafile.

Using a reference file in ReportStar to read data from particular records is similar to using a reference file in DataStar to “look up” data automatically for file-derived fields.

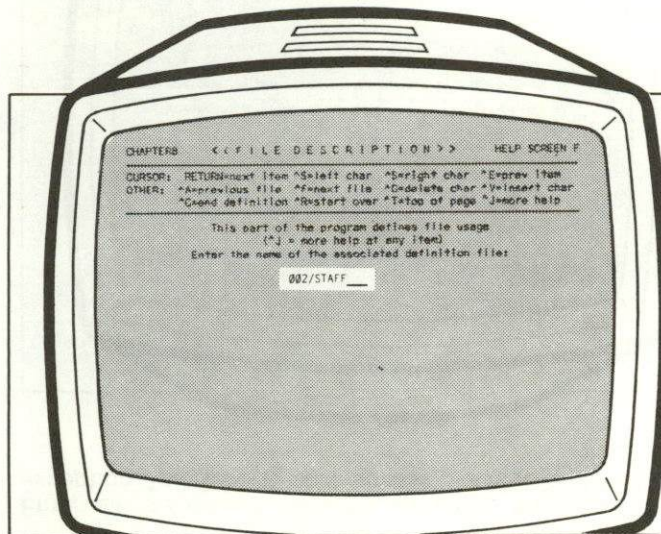
DataStar 1.4 allows you to use reference files to display or enter data from other datafiles on a data entry form. Even if you do not enter this data again (intermediate fields), you can still include it in a report. ReportStar can include data from several datafiles in one comprehensive report.

For more information about intermediate fields, see your DataStar manuals.

1. ADD A SECOND FILE TO THE CHAPTER8 REPORT

First, you will call up the CHAPTER8.RPT file in REDIT and go to the File Description Screen. You will see that the first File Description is for INVCE (001/INVCE). Since you will not change the File Description for INVCE, you can immediately begin adding File Description 002 for the STAFF form and datafiles.

You will add the STAFF file to print salespersons' names on the report. The instructions below show you how to enter the number and name the second File Description.



1. Call up the CHAPTER8.RPT file in REDIT.

REDIT CHAPTER8

RETURN

2. Call up the "next" File Description.

CTRL F

3. Enter the number 002 for this File Description and enter form definition file name.

RETURN

TYPE STAFF

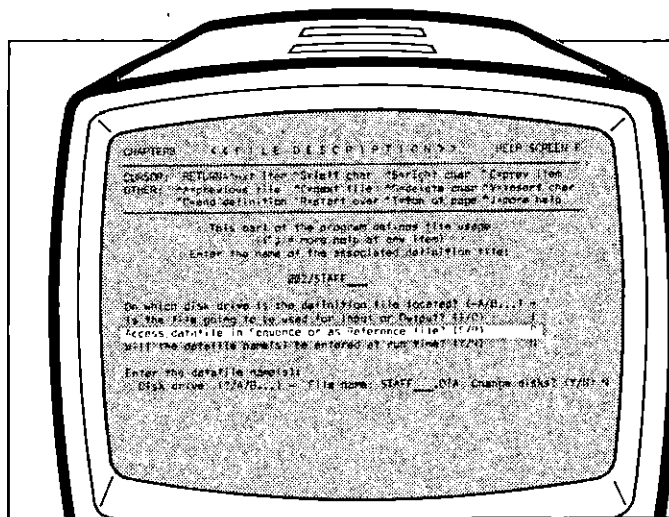
RETURN

You can include as many datafiles as you want in a report specification file. Each file must be described, and each datafile must have an associated form definition file.

2. ENTER THE FILE DESCRIPTION

Enter all the default answers with one important exception: Tell ReportStar to access STAFF.DTA as a

reference file. ReportStar will "look up" (reference) particular records from that datafile.



1. Enter the File Description default answers for each prompt until you see the prompt that asks, "Access the datafile in Sequence or as a Reference file?"
2. Tell ReportStar to access STAFF.DTA as a Reference file.
3. Enter the remaining File Description default answers.
4. When you see "003/_____", end File Description and go to the Report Layout Screen.

CTRL C

Reference files are usually datafiles that do not change often or are changed on regular schedules (such as name and address files, monthly balance-due files, etc.).

The "INCLUDE IF" option is not available for reference files, nor is the option to have the operator change disks while the report is running.

The Reference Manual has a diagram at the beginning of the File Description procedures to illustrate the entire sequence of File Description prompts.

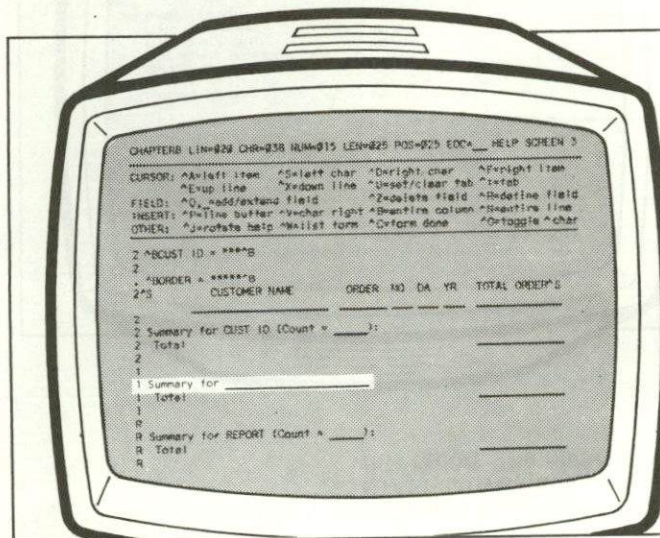
Press CTRL J at any prompt for more information.

REFERENCE
MANUAL
2120

3. ADD A REPORT FIELD FOR SALESPERSON NAMES

Following the instructions below, you will delete the record count summary field and replace the words "STAFF ID (Count =):" with a new report field. This new report field will bring in data from the NAME field in STAFF.DTA. The result will be a line that will print "Summary for" and then the salesperson's name.

Although it is not necessary to delete the record count summary field to add the new report field, this exercise shows you how to delete fields. You will learn more about this report layout form in the next section of this chapter.



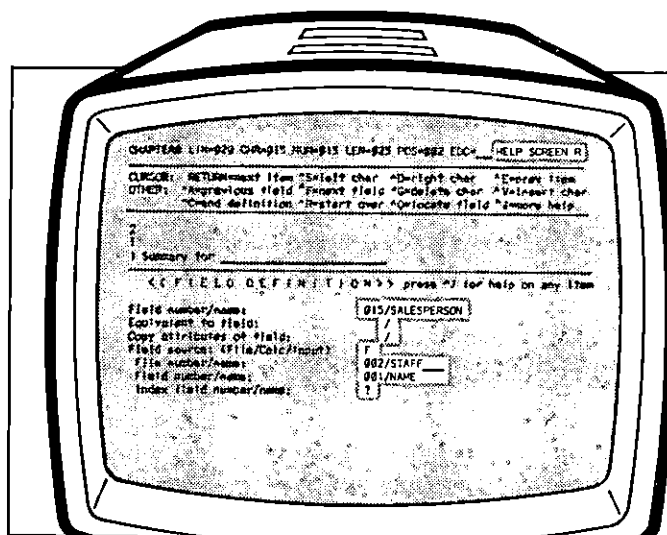
1. Move the cursor into the Summary for STAFF ID RECORD COUNT field, NUM = 015.
2. Delete this field. **CTRL Z**
3. Move the cursor left to CHR = 014 (on top of the "S" in STAFF).
4. Use either CTRL Q or the underline key and draw a 25-character field.
5. Move the cursor into the field you just drew and check field length. **CTRL S**
The status line should read NUM = 015, LEN = 025. (ReportStar automatically assigned number 015 to this field.)
6. When your screen matches the illustration, save and continue.

ReportStar automatically numbers report fields beginning with 001 at the top left of the layout screen, moving left to right, line by line, and ending with the last report field on the right of the last line. When you add or delete report fields, ReportStar automatically rennumbers all the report fields after the field you added or deleted. You can change the report field numbers in Field Definition.

The report field number determines the order in which data will be put into the report fields. Data will be put into field 001 first, then into field 002.

4. NAME THE REPORT FIELD AND DEFINE THE SOURCE

This field uses data from the NAME data field in the STAFF.DTA datafile, the second file you described for this report. The name will be SALESPERSON NAME.



1. The cursor must be in field number 15 (NUM = 015).
2. Call up Field Definition.
CTRL R
3. Enter the report field number and then name the field SALESPERSON NAME.
4. Skip "Equivalent to" and "Copy attributes," and then define the source of the data. The data is from File 002/STAFF and from field 001/NAME.

Your screen should match the illustration, and you should see the prompt, "Index field number/name:" on the screen.

Remember, for more information, press CTRL J at any prompt. The Help Message displayed shows the number of the procedure that describes this prompt in the Reference Manual.

The Reference Manual has a diagram at the beginning of the Field Definition procedures that illustrates the entire sequence of Field Definition prompts.

REFERENCE
MANUAL
2300,
2340-2342

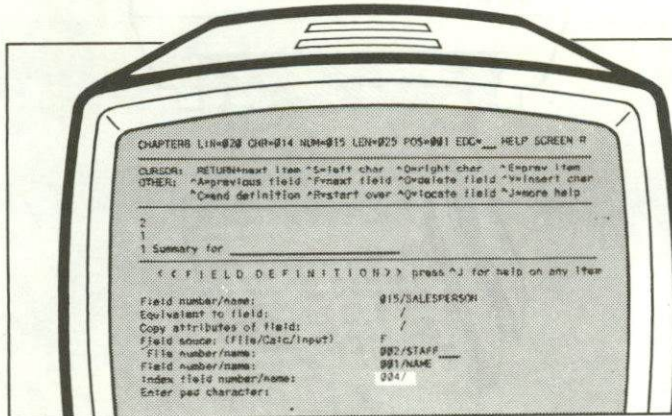
5. TELL REPORTSTAR WHICH REPORT FIELD HAS THE KEY DATA

Because the File Description tells ReportStar to access STAFF as a reference file, ReportStar needs to know which field on this report holds the Key data, the *index*, to STAFF.

The Key data in STAFF is the STAFF ID code. The STAFF ID's that are stored in STAFF.NDX are also in the STAFF ID fields in INVCE.DTA. Since report field

number 004 contains the STAFF ID data from INVCE.DTA, specify this report field as the index field.

ReportStar will look at the data in the index field, find the matching Key data in STAFF.NDX, and then bring the data from the NAME data field in STAFF.DTA into the SALESPERSON NAME report field.



CHAPTER8 LIN=020 CHN=014 NUM=015 LEN=025 POS=001 EDC= HELP SCREEN R

CURSOR: RETURN=next line ^S=left char ^O=right char ^E=end item
OTHER: ^A=previous field ^F=first field ^D=delete field ^V=insert char
^C=end definition ^R=start over ^X=locate field ^J=more help

2
1
1 Summary for _____

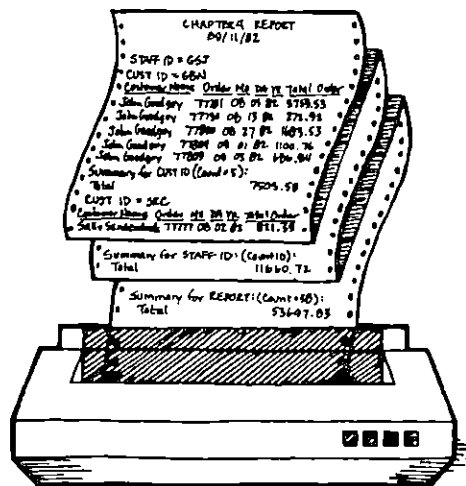
< FIELD DEFINITION >> press ^J for help on any item

Field number/name: 015/SALESPERSON
Equivalent to field: /
Copy attributes of field: /
Field source: (File/Cat/Input) F
File number/name: 002/STAFF
Field number/name: 001/NAME
Index field number/name: 004/
Enter pad characters: .

1. Enter the index field.
TYPE 004
2. End Field Definition.
 C
3. Go to the exit screen.
 C
4. Run the report.

The Quick Report used the datafile field name STAFF ID as a label for report field 004 but did not enter a report field name. The data in the report field used as an index field must match the Key data in the reference file. (The Key data in STAFF.DTA, the reference file, matches the data being put into report field 004). When a reference file Key has more than one level, the index field must contain data that matches the entire Key.

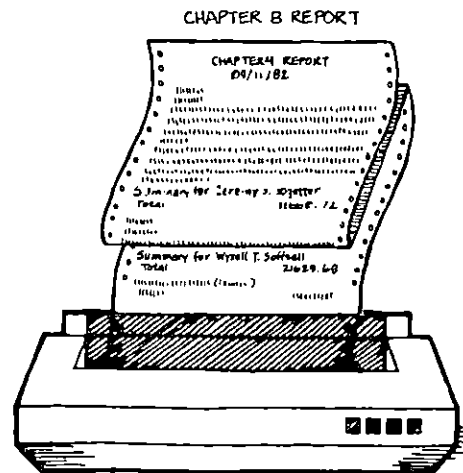
Look at What You've Done



From each record in INVCE.DTA, a STAFF ID code was entered on the report. This code was matched to the record in STAFF.DTA with the same ID code in the Key field. The NAME data from that record was then printed on the report.

To add these names to the CHAPTER8 REPORT, you first added a reference file, STAFF.DTA, to the report specification file. Second, you added a field to the report layout form for data from the NAME field in STAFF.DTA. Third, you told ReportStar to use the report field labeled STAFF ID as the index field.

Each time the index field was filled with a new code from INVCE.DTA, ReportStar found the matching code



in the STAFF.NDX index file, pointed to the record with that Key data in STAFF.DTA, and brought in the data from the NAME field in that record. Therefore, this report prints the names of salespeople only if their STAFF ID is in the INVCE.DTA file.

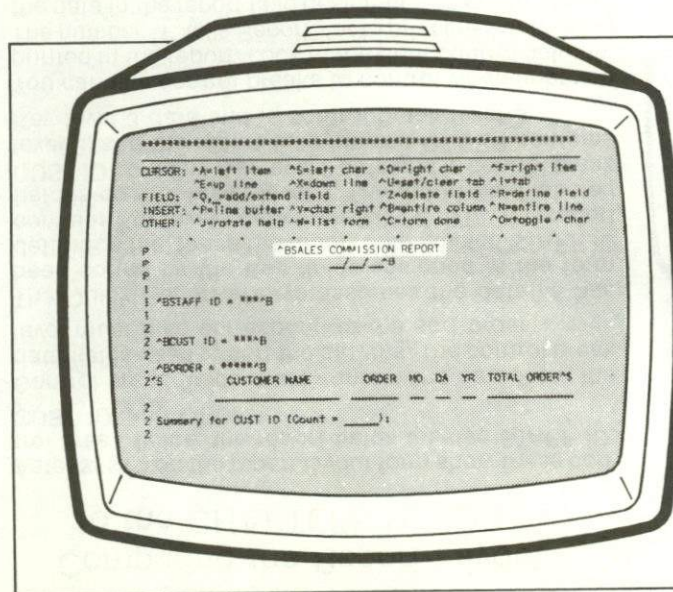
Notice that the line with the SALESPERSON NAME report field prints only once for each Key group.

The next section of this chapter explains the print control commands for this report. You will call up the CHAPTER8.RPT file in REDIT, change the title of the report and some of the print control commands, and then print a second (summary-only) report.

6. CHANGE THE REPORT TITLE

You will now change the report specification file to create a summary-only report. Later, you will calculate sales commissions for each salesperson. First though, you will change the title on the report layout form from CHAPTER4 REPORT to SALES COMMISSION

REPORT. Because you will type over the ^B now on the screen, you will need to insert another "begin boldface" command before you begin typing the new title.



- 1 Call up the CHAPTER8.RPT specification file in REDIT.

REDIT CHAPTER8

RETURN

- 2 Go to the Report Layout Screen.

CTRL C

- 3 Move the cursor to LIN = 003, CHR = 029.

- 4 Enter the "begin boldface" command.

CTRL V

CTRL B

- 5 Beginning at CHR = 029, type a new title. You will replace the old title as you type the new one.

TYPE SALES COMMISSION REPORT

Your screen should match the illustration.

Notice that the end boldface command still follows the data fields.

Behind the Screens

Comparing the Report Layout to the CHAPTER8 REPORT

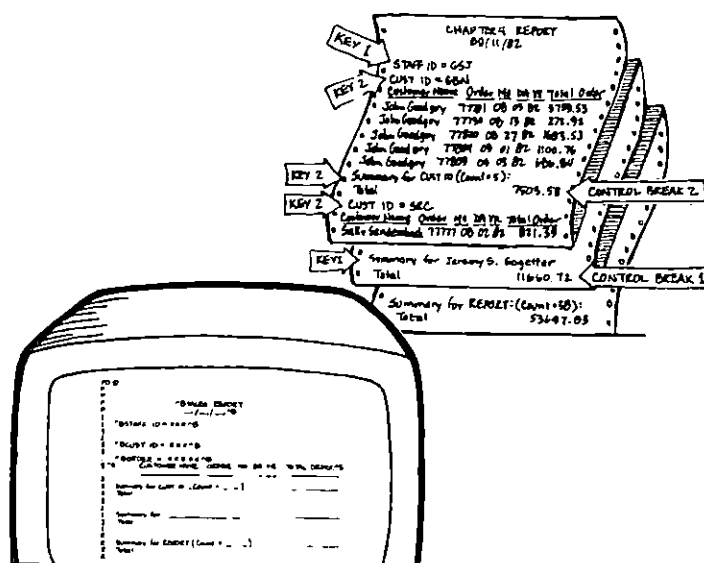
Asterisks (*) on the report layout form show these control break fields: the report fields labeled STAFF ID, CUST ID, and ORDER.

Control break fields must contain the data from the data fields used to sort the datafile. The control break level must also correspond to the sort order.

The Quick Report always assumes the datafile has been sorted by the Key fields assigned in the form definition file. Since the report field labeled STAFF ID contains Key level 1 data from INVCE.DTA, this report field is control break level 1. The report field labeled CUST ID contains Key level 2 data and is control break level 2; and the report field labeled ORDER contains Key level 3 data and is control break level 3.

You can use control breaks to control when lines are printed in the report. Look at the print control column. The number "1" tells ReportStar to print lines only when the data in the report field designated as control break level 1 (STAFF ID) is about to change. The number "2" tells ReportStar to print lines only when the data in the control break level 2 (CUST ID) report field is about to change.

You can see the result. The lines with spaces (for "always print") in the print control column print data from each record in INVCE.DTA. The lines with "1" in



the print control column print only once for each STAFF ID code.

The Quick Report entered a control break level "2" print control command for the lines with Key level 2 (CUST ID) summary data and labels. You can see that these lines printed only once for each CUST ID group.

Since you did not ask for a total by ORDER, the Quick Report entered a "." so the line with this report field would not print.

Later in this chapter you will look at two Field Definitions entered by RGEN: the level 1 control break field and the calculated total field for STAFF ID.

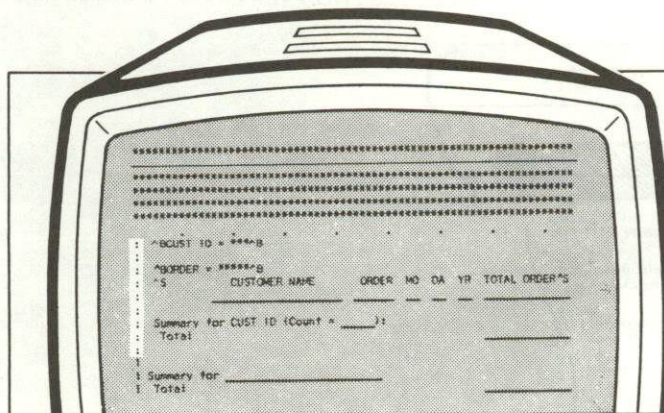
Remember, you can use CTRL J to toggle the Help Menus. Help Screen 1 has no Help Menu, allowing more room on the screen for the report layout form.

REFERENCE
MANUAL
2320,
2240

7. CHANGE THE PRINT CONTROL COMMANDS

Now you are ready to turn this report into a summary-only report by changing the print control commands. You will tell ReportStar not to print any lines except the title, date, and the lines with STAFF ID summaries

and labels. This report will print no detail lines, so you must use the summary only print control command (:) instead of the SPACE.



1. Move the cursor to LIN = 008, CHR = CTL.

2. Enter the "summary only" print control command for lines 008 through 019.
TYPE : twelve times.

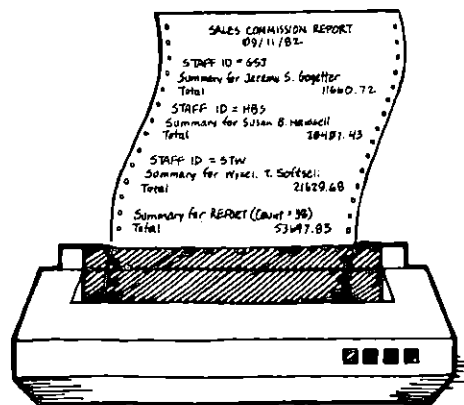
3. When your screen matches the illustration, go to the exit screen and run the report.

CTRL C
R

Notice that the order of the print control column is "P12:21R." You must follow this order for print control columns. That is, headings must be first, followed by any control break level lines in numerical order (1, 2 etc.), then spaces (or a :), then control break level lines in reverse order (2, 1), and finally footings.

All reports must have at least one detail line; that is, at least one SPACE (always print) or a : (summary only) in the print control column. Lines with a : print control command will not print on the report.

Look at What You've Done



You began by copying the CHAPTER4 REPORT specification file and renaming it CHAPTER8.RPT. You added the NAME data from STAFF.DTA that matched each STAFF ID from INVCE.DTA in the report.

Then you changed all the print control commands for the detail lines from a SPACE for "always print" to ":" to print a summary-only report.

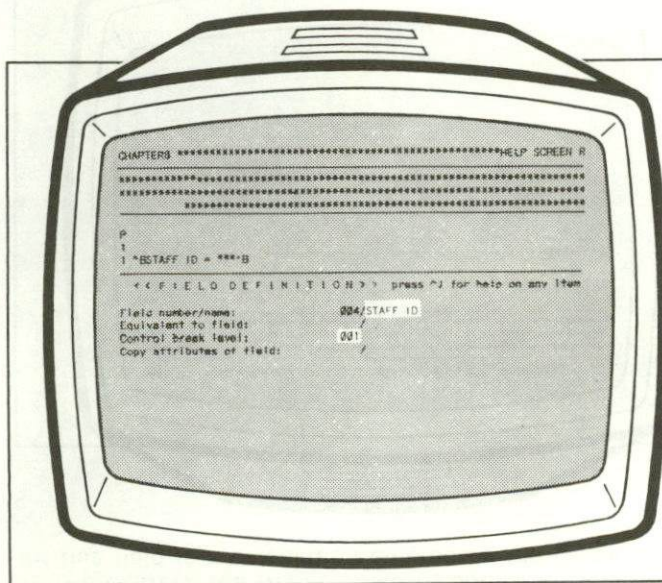
This summary report prints only the report title, now SALES COMMISSION REPORT, the date, and the Key 1 group headings and summaries.

Even though the data in most of the report fields doesn't actually print, ReportStar still loads this data into the report. Much of the data on nonprinting lines is used to calculate data for report fields on lines that do print (for example, to calculate totals).

8. LOOK AT THE FIELD DEFINITION FOR STAFF ID

The next report will calculate sales commissions for each salesperson. First, you will look at the Field Definition entered by the Quick Report for the control

break level 1 report field. The Quick Report did not name this field, so you will enter the name STAFF ID.



1. Call up the CHAPTER8 REPORT in REDIT and go to the Report Layout Screen.
2. Move the cursor into field NUM = 004.
3. Call up Field Definition. **CTRL R**.
4. Name this field STAFF ID.

RETURN

TYPE STAFF ID

RETURN

5. Go to the prompt, "control break level." **RETURN** twice

The Quick Report entered "1" because this field is the control break level 1 report field.

6. End Field Definition. **CTRL C**

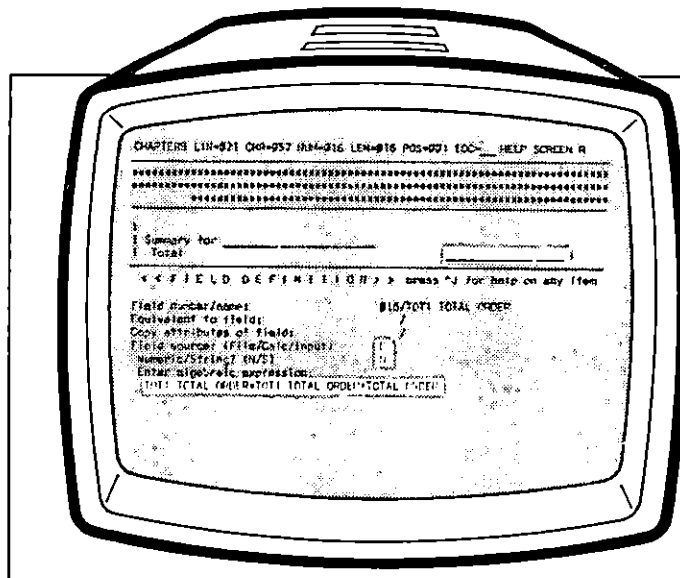
You can use up to nine control break levels in a report. Assigning control break status to report fields in ReportStar is similar to assigning Key level status to data fields in FormGen. You simply position the cursor in a report field and press CTRL K. This changes the underlines on the screen to asterisks and causes the control break level prompt to appear in Field Definition for the report field. (To remove control break status, position the cursor in the report field, press CTRL K and the asterisks will be replaced with underlines. Don't remove control break status from the STAFF ID fields.) The Quick Report never enters report field names for control break fields.

REFERENCE
MANUAL
2300,
2320

9. LOOK AT THE TOT1 TOTAL ORDER FIELD DEFINITION

Now, you will look at the definition for report field TOT1 TOTAL ORDER. You will see that the source of data for this field is a calculation entered by the Quick

Report. The calculation tells ReportStar to total the data in the TOTAL ORDER report field.



1. Move the cursor into the TOT1 TOTAL ORDER field, NUM=016.
2. Call up Field Definition.
CTRL R
3. Press RETURN until you see the prompt, "Field Source."

Notice the Quick Report entered "C" for calculation.
4. Look at the calculation.
RETURN twice.

This is a numeric calculation; that is, the data used in the calculation is numbers. The calculation is: "TOT1 TOTAL ORDER = TOT1 TOTAL ORDER + TOTAL ORDER."

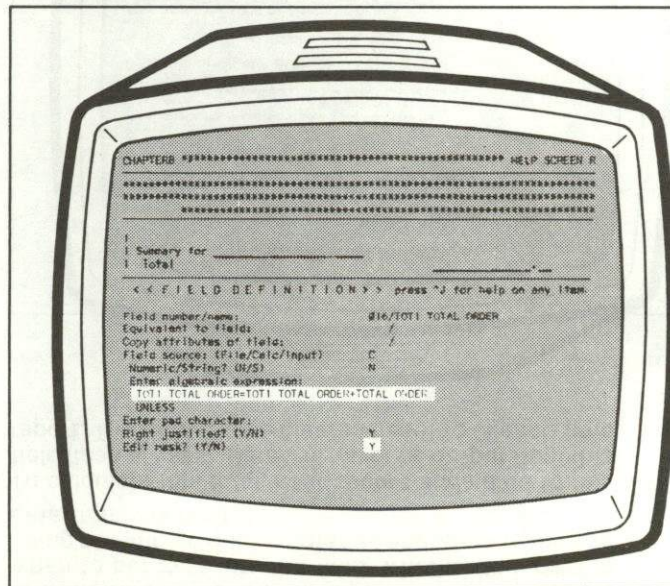
The calculation tells ReportStar to start with the first record's data from the TOTAL ORDER report field, then add the TOTAL ORDER data from the next record to this data, and so on, for each record used in the report. The result is a sum of the data in TOTAL ORDER.

10. LOOK AT THE EDIT MASK

The next series of prompts tells ReportStar how you want the data to look when it's printed.

The Quick Report tells ReportStar to print the data right justified, to pad the field with spaces, and to print a

decimal point in the data. To print data with decimal points, you must use an edit mask. The edit mask is entered in two parts: the condition (insert a decimal point two characters from the right) and the constant (a decimal point).



1. The Quick Report asks for the report field to be padded with spaces when the data from the data field doesn't fill the report field.

RETURN

2. The Quick Report lines up the data on the right side of the report field. (This means the pad characters, spaces, are put to the left of the data.)

RETURN

3. You'll see "Y" in answer to the prompt "Edit mask (Y/N)."

RETURN

4. Notice that the report field has the condition "." for align decimal point.

RETURN

5. Notice the decimal point constant entered in the report field.

RETURN

The purpose of the edit mask in ReportStar is somewhat different from DataStar. In DataStar, an edit mask helps control data entry. In ReportStar, you use the edit mask to print special characters.

You will specify an edit mask when you enter a Field Definition for the SALES COMMISSION report field later in this chapter.

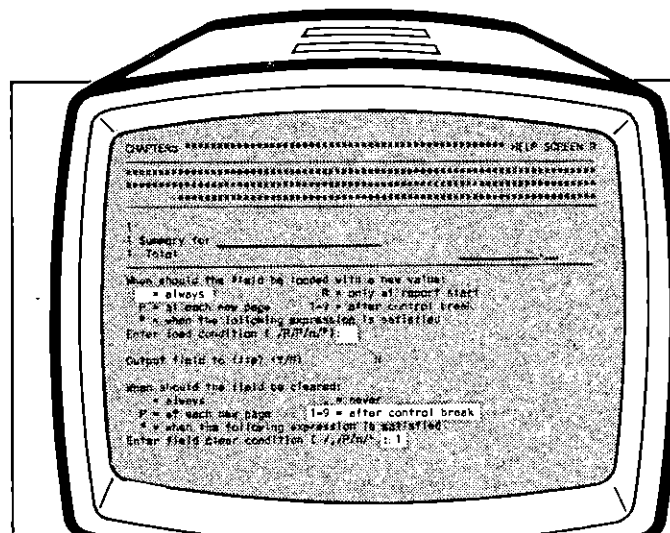
11. DATA IN AND DATA OUT

The answers to the next three prompts tell ReportStar when to put data into the field, whether this data is being put into an output datafile, and when to remove data from the field.

To calculate this total, each record adds data to this field (load always). Data will never be output from this report. The field will be cleared (reset to 0) each time

control break level 1 occurs (that is, each time the data in the STAFF ID field changes from one code to another).

The LOAD condition and the CLEAR condition work together to determine when a Key group total has been accumulated.



1. Look at the "load" prompt. RETURN
The Quick Report entered a space to say that the data should always be put into this field.
2. Look at the "output" prompt. RETURN
"N" tells ReportStar that data from this field will not be put in an output field.
3. Look at the "clear" prompt. RETURN
The clear condition "1" tells ReportStar to clear the data from this field each time the data in the control break 1 field changes.
4. End Field Definition. RETURN

When ReportStar "always loads" a report field, data is put into the field each time a new record is used in the report.
When ReportStar "clears" a report field, the value in the field is reset to zero.

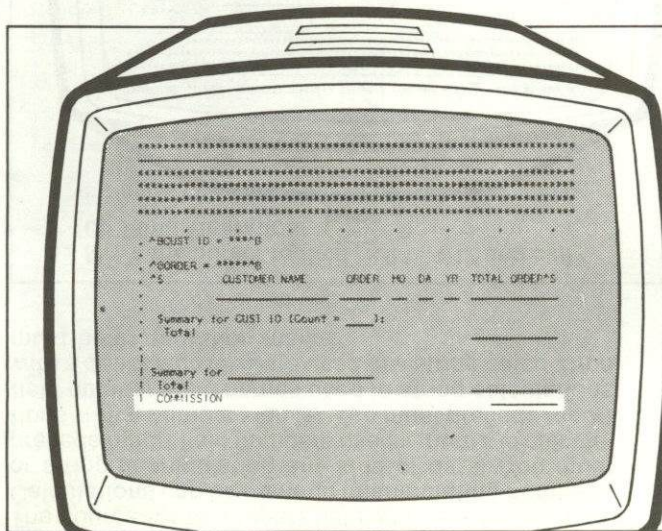
REFERENCE
MANUAL
2360, 2370,
2380

12. ADD A REPORT FIELD TO CALCULATE SALES COMMISSIONS

You will now add a report field that will calculate a sales commission. The sales commission will be a percentage of the total orders for each salesperson in the report except Jeremy S. Goetter. Jeremy is paid a salary.

Since you want this line to print with the other lines for Key level 1 group summaries and headings, you

must add a line with the print control command "1" to the report layout form. To do so, you can simply copy a line that already has a "1" in the print control column and then draw the field on that line. You will also add another line with a "1" in the print control column to print a blank line between each Key level 1 group summary.



1. Move the cursor to LIN = 022.
2. Store a copy of this line in the line buffer.
CTRL P
3. Insert two copies of the line stored in the line buffer.
CTRL N twice
4. Begin at CHR = 003 on LIN = 022 and type the label, COMMISSION.
5. Begin at CHR = 063 and draw a 10-character field.

This is field NUM = 017, LEN = 010.

Your screen should look like the illustration.

You can use the line buffer to copy any line on the report. When you insert lines, ReportStar automatically rennumbers the following lines on the report layout form. If the line you copy and insert has fields drawn on it, ReportStar also automatically copies the Field Definitions for the fields you inserted and rennumbers all the report fields following the added fields.

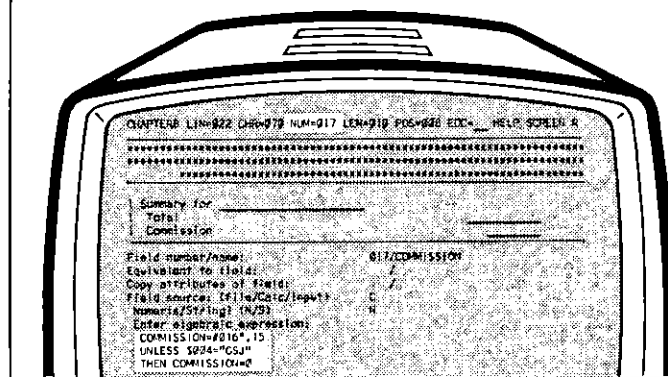
13. CALCULATE THE COMMISSION

The source for this report field will be a calculation. Calculations can be numeric (manipulating numbers) or string (manipulating any kind of data). You must precede report field numbers used in numeric calculations with a number sign (#). You must precede report field numbers and names used in string calculations with a dollar sign (\$). Data used in a string calculation must be in quotation marks.

The calculation for this field is the data in the TOT1 TOTAL ORDER field, field number 016, multiplied (*) by 15% (.15).

You will exclude Jeremy S. Goetter from the commission calculation by telling ReportStar to calculate the commission *unless* the data in STAFF ID, number 004, is the code GSJ (\$004="GSJ"). And *then*, if the data in STAFF ID is "GSJ," the commission will be zero (COMMISSION=0).

1. Move the cursor to field NUM = 017 and call up Field Definition. **CTRL R**



2. Enter the report field number and name the field **COMMISSION**.
3. Go to the Field source prompt and enter the source. **TYPE C**
4. Enter "N" for numeric. **RETURN**
5. Tell ReportStar what COMMISSION equals. **TYPE #016*.15 RETURN**
6. Enter an "UNLESS" expression. **TYPE \$004 = "GSJ" RETURN**
7. Tell ReportStar what COMMISSION will equal THEN. **TYPE 0 RETURN**
8. Skip the next "UNLESS" **RETURN**

Calculation expressions don't have to use report fields. Data for a calculated field can come from any algebraic expression (even something as simple as $1 + 2 + 3$).

When you use a report field in a calculation, remember to use a report field with a lower number than the field being defined. (Remember, data is put into fields in order according to the report field number.) You must use *report* field names or numbers for calculations *not datafile* field names or numbers.

Appendix C of the Reference Manual has more information on algebraic expressions and has examples of calculations you might want to use in reports.

REFERENCE
MANUAL
2344-2346

14. PRINT THE COMMISSION DATA WITH AN EDIT MASK

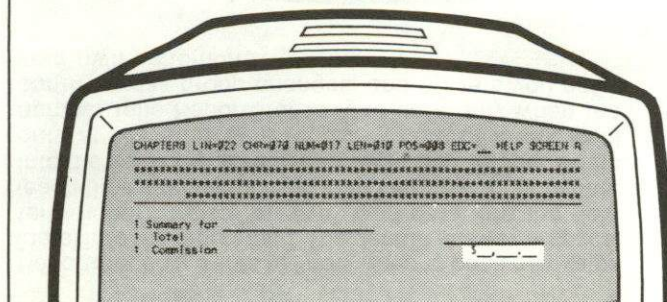
The answers to the next series of prompts control how the data will look when it's printed. Since the data in the COMMISSION field will be a decimal amount, you will align the numbers on the right side (rather than the left) by typing "Y" in answer to the prompt "Right justified?".

You will use an edit mask to add a dollar sign, comma, and decimal point to the data that is printed in the COMMISSION report field.

The edit mask conditions will be as follows: "F" to float (position) the dollar sign just before the first number, a quotation mark (") to insert a comma when there will be numbers on both sides of the comma position, and a dot (.) to insert a decimal point in a fixed position. The constants will be a dollar sign, a comma, and a decimal point.

The status line shows you the edit mask conditions (e.g., EDC = F_) and then the constants (e.g., EDC = F\$) for each position.

1. Pad the field with spaces. **RETURN**
2. Line up the data on the right side of the report field.
TYPE Y



3. Ask for an edit mask.
TYPE Y
4. Enter eight edit mask conditions.
TYPE FFF"FFF.
Be sure to type the decimal point condition.
RETURN
5. Enter the edit mask constants. (The status line shows the condition.)
TYPE \$ **CTRL** D twice
TYPE , **CTRL** D three times
TYPE .
Your screen should look like the illustration. **RETURN**

You need to enter a constant only once for all F conditions.

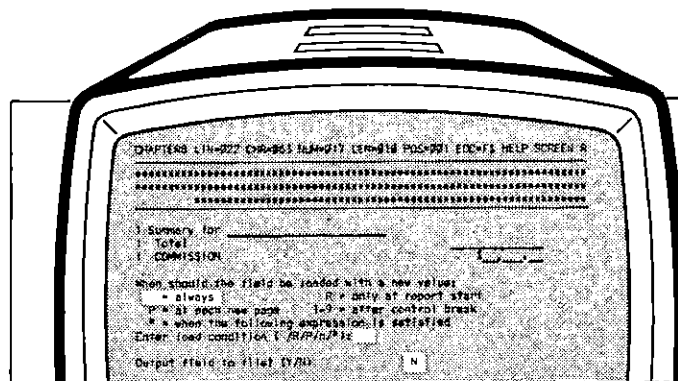
You must use an edit mask to print a symbol for a negative number. The Reference Manual has many examples of edit masks. You can use the copy attributes prompt to copy a Field Definition (including the edit mask) for a report field previously entered. Simply enter the number of the report field you want to copy and remember to change any definitions that don't apply (such as the source of the data).

15. ENTER THE "LOAD WHEN" CONDITION, AND TELL REPORTSTAR NOT TO PUT THE DATA INTO AN OUTPUT FILE

ReportStar now wants to know when to put a new value (data) into the report field. The default answer, a space, tells ReportStar to "always" load data into the field (each time a record is used in the report). "P" puts data into the field only at each new page, and "R" loads data only at the start of a report. A control break level number tells ReportStar to load data only when the control break group changes, and "*" lets you enter your own conditions.

You will enter the default answer so the data for COMMISSION will always be put into the report field.

The second prompt you'll see (Output field to file?) could be used to tell ReportStar that in addition to printing the data on the report, you want data from this report field to be put into a datafile. Since you will not put the data from COMMISSION into an output file, you will simply press RETURN to enter "N" at this prompt.



1. Tell ReportStar to "always" put data into this field.

RETURN

2. Tell ReportStar the data from this field will not be put in an output datafile.

RETURN

The only fields on this report that don't have data "always" loaded into the fields are the three date fields at the top of the report. These three report fields are operator input fields. So that the operator needs to enter the dates only once, the Quick Report entered "R" to load these fields at "report start." The command "P" in the print control column causes the dates to print once on each page. Because the Quick Report entered "never clear," the data stays in the fields.

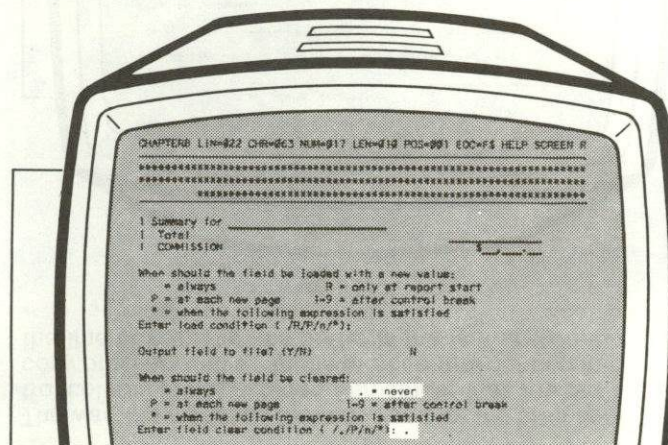
Any report data can be stored in a datafile if you tell ReportStar to put the data from the report fields into an output datafile. Make sure that a File Description has been entered for the output file.

REFERENCE
MANUAL
2360,
2370

16. ENTER THE "CLEAR IF" CONDITION

Now ReportStar wants to know when you want data cleared from this field. You will enter the default answer, a dot, which means "never" clear the field. Clearing a field means that ReportStar resets the value of the field to zero. "Never" clear means that ReportStar will replace the data each time the field is loaded.

Because you told ReportStar to "always" load data into this field, and because the data for this field comes from TOT1 TOTAL ORDER (which has already been cleared at control break 1), you can tell ReportStar to "never" clear this field.



1. Enter the answer "." on the screen to "never" clear the data from the COMMISSION field. This completes the Field Definition.

RETURN

2. Go to the exit screen.

CTRL C

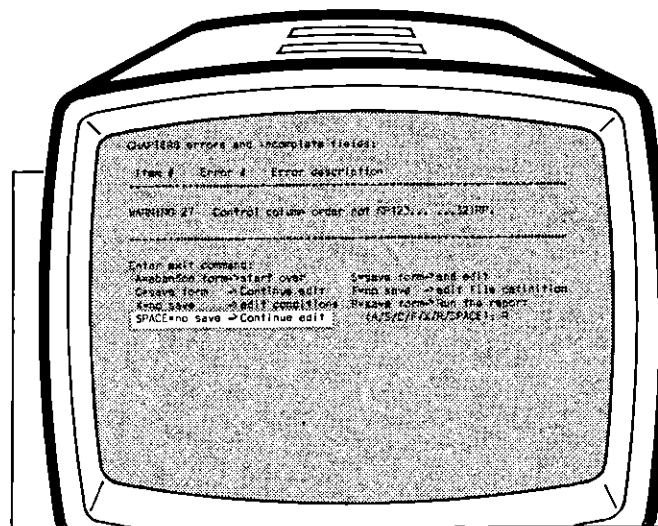
ReportStar prints all the control break summary lines before it clears any of the report fields at that control break. This means the summary report fields print at control break level 1 and then the data in the TOT1 TOTAL ORDER field is cleared.

After the summary lines print, the next value calculated for COMMISSION from TOT1 TOTAL ORDER will be from the next control break level 1 group.

17. CORRECT A WARNING AND RUN THE REPORT

The warning message reminds you that the print control column is not in order. Remember that you put a copy of a line with a 1 in the print control column into the line buffer. The line buffer is the last line on the

report layout form; so there is a line with a 1 in the print control column after a line with an R. Go back to the Report Layout Screen, delete the line in the line buffer, and run the report.



1. Continue the edit.
SPACE
2. Move the cursor to the last line on the report layout form, LIN = 030.
3. Delete this line.
CTRL Y
4. Go to the exit screen and Run the report.

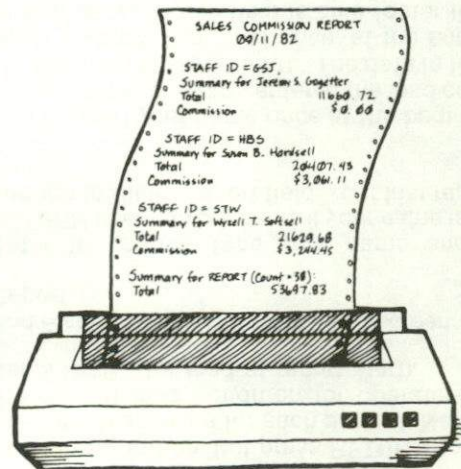
When you see error messages on the exit screen, you won't be given the option to run the report. You can run reports when you see warning messages, but the results may not be exactly when you want.

Look at What You've Done

You started with a copy of the CHAPTER4.RPT report specification file. The CHAPTER4 REPORT used one datafile, INVCE.DTA, to print total orders per customer (CUST ID) and per salesperson (STAFF ID).

You changed the report specification file and turned this report into a SALES COMMISSION REPORT. This new report includes a name from STAFF.DTA for each STAFF ID in INVCE.DTA and prints only the title, date, and lines with Key level 1 summaries and headings. A 15% sales commission is calculated for each Key level 1 group unless the STAFF ID code equals "GSJ", and then the commission equals zero.

Notice the edit mask you entered for the COMMISSION field caused the data to print with a dollar sign, comma, and decimal point—even the zeros for Jeremy. You could add dollar signs and commas to the other total fields by entering edit mask conditions and constants for those fields, too.

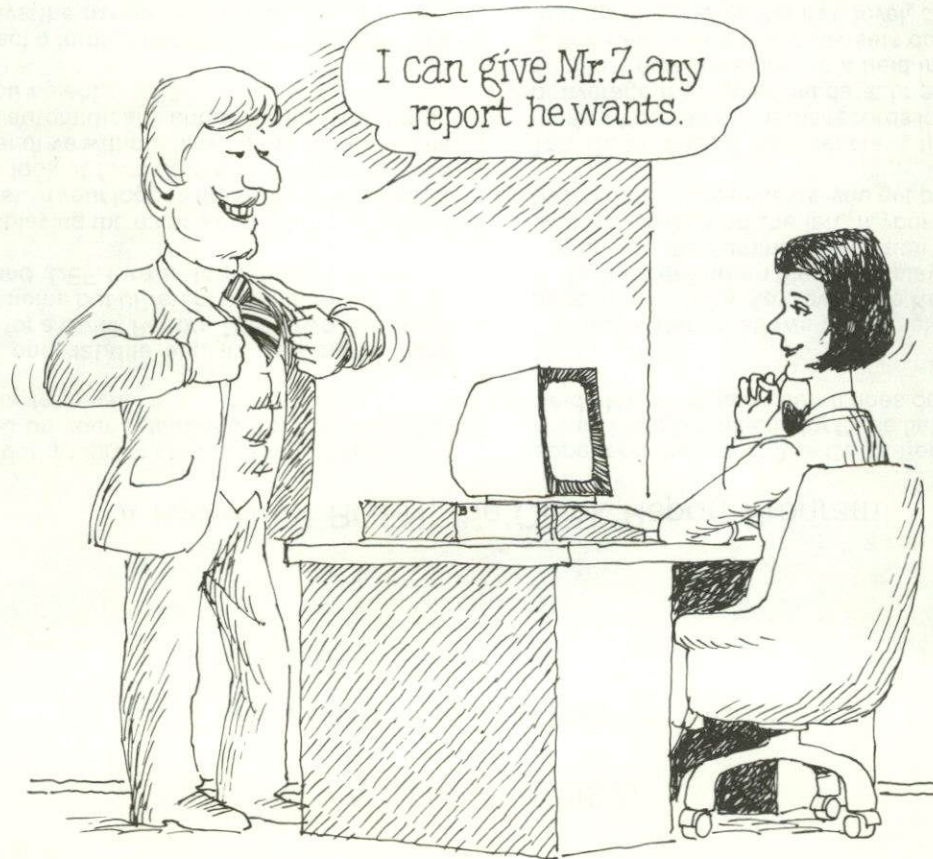


This is the last chapter of the Training Guide. The following section of the Training Guide reviews what you have learned and includes Helpful Hints in the form of questions and answers that will help you use ReportStar for your applications.

If the COMMISSION calculation on your report doesn't match the calculation illustrated, first check the calculation you entered for this report field; then check the edit mask. The calculation instructions are on page 8-22, the edit mask instructions are on page 8-23.

How Flexible is REDIT? Try One Last Report

1. Call up the CHAPTER8.RPT file in REDIT and go to the Report Layout Screen.
2. Move the cursor to the last line of the report layout, LIN = 028. Press CTRL N to insert a copy of this line.
3. On the next line, LIN = 029, begin at CHR = 002 and draw a 25-character field. On the same line, immediately after the field, type the following: "just completed the ReportStar Training Guide."
4. Move the cursor into the field you just drew and enter Field Definition.
5. Name the field COMPLETE and enter "I" (for operator input) as the source of data for this field.
6. You'll see the prompt, "Enter Input prompt:". Type the following: "Type your name." Then press RETURN to enter the Input prompt.
7. Enter CTRL G as the pad character at the next prompt and press RETURN.
8. You will enter all the default answers for the rest of Field Definition, but press RETURN to look at the default answers for each prompt. Notice that the default load condition for operator-entered fields is "R" (for load at report start).
9. End Field Definition. Go to the exit screen. Run the Report.
10. Enter the dates. Type your name and press RETURN to enter your name if your name isn't long enough to fill the report field. Your last report will print.
11. You entered your name once at the beginning of the report because you entered the load condition "R" for "load at report start." The data in this field never cleared. It printed once, at the end of the report, because this field is on a footer line with "R" in the print control column.



A QUICK REVIEW

Here is a brief review of the ReportStar program.

A Review of RGEN, the Quick Report Program

The Quick Report program creates a report specification file based on your selections from choices displayed on your terminal.

You can use one datafile and its associated form definition file for a Quick Report. These two files must use the same name but different extensions, .DTA for the datafile and .DEF for the form definition file.

As well as displaying the names of the form definition files on the disk in your logged drive, the Quick Report allows you to look at form definition file names on a disk in another drive without leaving the program. The Quick Report automatically enters a File Description for the file you select.

Once you select a form definition file name, the Quick Report displays the names of the data fields in that file. The field names you select are used as labels on the report for columns of data from those fields. You select fields in the order in which you want them to

appear on the report. The Quick Report automatically enters Field Definitions for these fields and puts report fields for the data on detail lines on the report layout form.

The Quick Report allows you to select summaries by page, report, or by Key level. The Key fields assigned in the form definition file are displayed in a horizontal line across the Summary Selection Screen beginning with Key level 1 on the left. If your datafile is sorted by the data in these fields, you get predictable results.

The Quick Report can generate five kinds of summaries. You can count the records in the datafile, total or average the numerical data, or print the largest or smallest number stored in a field in the datafile. The Quick Report automatically sets control break levels that correspond to the Key level, creates calculated fields, and creates a report layout form (including control break print control commands for summary headings and data).

A Review of the REDIT program

There are three parts to REDIT: File Description, Field Definition and Report Layout.

The Quick Report enters a File Description, Field Definitions and creates a Report Layout Form for you. But when you create an entire report specification in REDIT, you enter both the File Descriptions and Field Definitions and create the Report Layout Form yourself.

Often the fastest way to create a report is to start with a copy of a report specification file created with the Quick Report program. Then you can add to and change this file with REDIT.

Whether you create a report from scratch or add to a Quick Report, you'll find you can often simply enter the default answers in REDIT's File Description and Field Definition. For more information about a prompt, press CTRL J. The Help Message includes a procedure number which can be used as a quick index to the Reference Manual.

File Description

Each file used in a report must be described, and the File Description must include the name of a form definition file for each datafile. You can enter up to 250 File Descriptions.

A report that uses more than one datafile can access each file either sequentially or selectively as a reference file.

Access datafiles in sequence when you want ReportStar to look at all the records in the datafile. (This is the fastest way to bring data into a report.) All the datafiles accessed sequentially must be accessed in the same sort order for predictable results. Sequential access can be in datafile order or in index order.

Use reference files when you want ReportStar to select data from particular records. ReportStar will select records when the key data matches the data in a report field designated as the index field. Datafiles used as reference files must have the associated index file on the same disk.

You can enter a File Description for an output datafile so that data from the report can be directed to that file.

When a form definition file describes a datafile stored in volumes (under more than one name), all the volume names can be entered in one File Description. Datafiles used in a report can be stored on more than one disk, and you can enter datafile names and change disks while the report is running.

Report Layout

Each line of the report layout form needs a print control command. Use cursor control commands to move the cursor into the print control column on the left of the screen.

Each report layout form must have at least one detail line, that is, at least one line with a SPACE or a "." print control command.

Print control commands must follow a specific order when you use headings, footers, and control break levels (e.g., PR123 321RP, or RP123:321RP). Non-printing lines (".") and print conditions that you set ("**") can appear anywhere in the print control column.

You can put report fields and background text anywhere on the layout form. Use CTRL Q or the underline key to draw report fields. ReportStar automatically numbers report fields, and the report field numbers tell ReportStar in what order to load data into the fields. Control break fields are designated with asterisks by using the CTRL K toggle key.

Print reports with special effects by using CTRL V to insert commands. Dot commands also control how the report is printed.

Field Definition

Enter Field Definition by positioning the cursor in a field and pressing CTRL R. To locate the field you are defining, press CTRL Q.

You can assign control break status to nine report fields. Report fields designated as control break fields must contain data from the fields used to sort the datafile. Also the control break level assigned to a report field must correspond to the sort order of the datafile.

Data for report fields can come from three sources: a datafile, the result of a calculation you ask ReportStar to make, or operator input. Calculations can be numeric (manipulating numbers) or string (manipulating any data). You can use data from other report fields in a calculation.

You can put data from a report field into a data field in an output datafile if you have previously entered a File Description for the output file.

By setting edit mask conditions and constants, you can print the data with characters such as dollar signs, minus signs, decimal points, etc.

A Review of the REPORT program

The REPORT program runs the reports you create.

REPORT uses the instructions in the report specification file entered through RGEN, REDIT, or a combination of the two. Reports can be printed or written to the disk in your logged drive. Once you create a report specification file, you need only the REPORT program and the datafiles you are using in the report.

REPORT begins with field 001. It loads data into all the report fields on the layout form in order (according to the report field numbers and load conditions), prints the lines, clears any fields that are designated to clear at specific conditions, and then begins the report process again.

The relationship between "load" and "clear" conditions is particularly important when you create reports that have one report field using data from another report field.

If a report field has data "always" loaded, new data will be entered into the field each time REPORT reads a data record. This data will stay in the report field during an entire report pass unless the field is cleared.

If a report field is *loaded at report start* and never cleared, the data in the report field will always be the data entered at the report start.

Remember, though, that print control commands determine when the line with the data is actually *printed* on the report.

REPORT prompts you for any data to be entered by the operator. It will ask you if you want to change disks or to enter datafile names according to the instructions in the File Description.

HELPFUL HINTS

Reports Don't Need Datafiles

Not all reports need datafiles. A report can be created with operator input fields only, calculated fields only, or a combination of the two. For example, you can use ReportStar to produce a loan amortization table. Your

report fields would include operator input fields (to put in an amount) and calculated fields (to calculate total interest). The percentage could also be entered by an operator, allowing you to derive totals based on a variety of interest rates and amounts.

Using Data Created with CalcStar and/or WordStar for Reports

Use DataStar's FormGen program to create form definition files that describe datafiles created with CalcStar or WordStar.

The datafiles must be in comma delimited, carriage return format: each field is separated from the next with commas, and a carriage return signifies the end of each record.

To access a datafile sequentially in index order or use it as a reference file, you need a matching index file. Create an index file with FormSort.

The Advantages of Sending Reports to a Disk

Not having a printer is only one of several reasons for sending a report to a disk. If you ask ReportStar to "write the report output to a disk" instead of printing the report, the program creates a file with the .RPT filename plus the extension ".PRN." You can then look at the report data in WordStar (or with the text editor of your operating system).

Sending a report to a disk rather than printing it is the fastest way to create a report.

Use any WordStar features to edit lines in the report, specify page breaks, "quick find" data, add special effects, or even print the report within another WordStar document.

Suggestions for Back-up Files

ReportStar creates a back-up file with the extension ".BAK" whenever a report specification file is changed. If you use WordStar to change a report written to the disk, Wordstar also creates a ".BAK" file. (For example, the report specification file is named A.RPT. The back-up file is A.BAK. The report on disk is named A.PRN. The WordStar edit to A.PRN creates a file named A.BAK.).

Because you can't have two files with identical names on your disk, the ".BAK" file will be the last one created. If you edit the .PRN file after you edit the report specification file, the .BAK file will be a back-up of the report itself, not the report specification. Thus you won't have a back-up of the report specification file on your disk.

The same thing can happen if a form definition file has the same name as the report specification file (e.g., A.DEF and A.RPT). If you modify A.DEF, DataStar will create A.BAK. If you then modify A.RPT, ReportStar will write over A.BAK with the A.RPT back-up file. If you modify A.PRN, WordStar will write over the A.BAK back-up file for the report specification file, and you'll only have a back-up of the .PRN file on your disk. (The A.DEF and A.RPT back-up files will have gone to data heaven.)

Always make back-up files and store them in a safe place.

Using ReportStar to Add a Data Field to a Datafile

First, copy and rename the datafile and the form definition file. Add a field to the form definition file. You now have two form definition files: (A) the original and (B) the original plus the added field; and two duplicate datafiles (A) and (B).

Create a report that describes the (A) form definition file and datafile as input, and the (B) form definition file and datafile as output.

Put the data you want to add to the datafile in a report field (the source of the data could be another datafile you're using for the report, the result of a calculation you ask ReportStar to make, or data you enter while the report is running). Use Field Definition to tell ReportStar to put data from that report field into the new data field in the output file, datafile (B).

A Quick Way To Run Most of the Data from a Datafile into an Output File

Use the Quick Report to select all the fields (up to the 255 column limit), select "F" to go directly to REDIT, add the output file to File Description, then change the

Field Definitions for the fields you want to output. (If you reach the 255 column limit in RGEN, you may have to add some report fields to the layout.)

You Don't Need to Print Reports or Write Reports to a Disk

When a report specification is designed solely to output data, you may not want to print the report or write it to a disk. Use the summary only (:) print control com-

mand on all the lines of the report, or use the summary only (:) command once and a dot (.) for the other lines. ReportStar will quickly output the data.

Sequential Access vs. Accessing Datafiles as Reference Files

Access a datafile in sequence when you want to use data from every record in the datafile. (In Chapter 8, for example, ReportStar reads every record in the INVCE .DTA file.)

Access a datafile as a reference file to bring in data from particular records in that file. ReportStar will

select records when the Key data matches the data in a report field designated as the index field. (In the Chapter 8 report, ReportStar found salespeople's names from the reference file only if their codes appeared in the INVCE .DTA file.)

Controlling When Detail Lines Print

A SPACE in the print control column tells REPORT to print a detail line once for each record used in the report ("always" print). When you use this command and there is no record to use for a detail line and there are records to use from another datafile for other detail lines, ReportStar will print a blank line. (For example, one datafile may have fewer records in a Key group than another, or there may be a Key group in one file but not in the other.)

You can enter user defined print control conditional commands or use control break level conditions to control when data is printed.

A user defined print control command ("**") tells ReportStar to print the line of data for the second datafile only when there is data to be put in the fields.

Some examples:

PRINT WHEN report field 0.

PRINT WHEN CB(1)=1.AND.report field 0.
(CB stands for Control Break)

Merging Datafiles for a Report

Remember, to get predictable results when you merge datafiles (that is, when you access more than one datafile sequentially), the files must be in the same sort order. If the datafiles are sorted, you can access them

in sequence in datafile order (the fastest way to bring data into a report). If the datafiles are not sorted, you can (1) sort the datafiles or (2) access the unsorted files in index order.

Selecting Records from a Datafile

Records can be selected in different ways. You can ask for a file to be accessed in sequence and use the Include If function to include only the records with the data you specify. You must use the *names* of datafile

fields for INCLUDE IF conditional statements. Report fields can be used for INCLUDE IF conditional statements only if these fields are designated to load at report start (R).

Using One Datafile and Accessing It As a Reference File

To access a datafile as a reference file, first describe it as a reference file. Second, create an operator input field on the report layout to enter the Key data for the records you want. (Be sure to specify that this field be loaded "always.") Third, use the operator input report field as the index field for the rest of the fields on the report layout.

The records used in the report will depend on the Key data you enter while the report is running.

(Remember, you must enter an entire Key into one index field. If the form definition file has more than one level of Keys, you must enter data for all the levels to enter a complete Key.)

Since you are controlling the input for this report, tell ReportStar when to end the report by choosing "X" on the REDIT exit screen and entering an end report condition. (When files are accessed sequentially, the report ends when ReportStar finishes looking at all the records.

Adding Changes in a Form Definition File to the Report Specification

When you enter the code for the disk drive which contains the form definition file in File Description, ReportStar looks at the form definition file and stores the information it needs in the report specification file.

If you want ReportStar to look at the form definition file again and change the information stored in the report specification, you must re-enter the disk drive code.

Go to the File Description for the form definition file you changed and then to the prompt that asks which disk drive has the form definition file. Deleting the disk drive code entered and entering a code for any other drive on your system forces ReportStar to hunt for the form definition file. If the form definition file is not on the disk in that drive, ReportStar will ask for another disk drive code. Then, enter the correct disk drive. ReportStar will look at the form definition file and store the information in the report specification file.

Rounding Off Numbers

You can round off the results of calculations by adding to the numerical expression entered for the calculation. For example, when a report field allows only two characters after the decimal point, and the result of the calculation is 4.67899, ReportStar will print 4.67. Add "+0.005" to the numerical expression and

ReportStar will add .005 to the calculation and print 4.68. (If the report field has only three characters after the decimal point, ReportStar shortens the calculation result to 4.678. In this example, round the figure off to 4.679 by adding "+.0005" to the numerical expression.)

Using Your Own Numbering System For Report Pages.

You can put page numbers anywhere on the report layout and begin numbering pages at any number you choose. First draw a report field on the layout for the page numbers. Then define this field as a calculated field and use ReportStar's PAGE function in the calculation (e.g. #001 = PAGE). To begin with a page number other than one, add to this calculation. For

example, to begin with page number 6, enter the following calculation: Report Field = PAGE + 5). Use the edit mask feature to add constants such as (-6-) or (6-10) to the number. Remember to enter a print control command to print this line once for each page.

Printing Constants

Use the edit mask Float and Trail conditions to print specified constants such as “.” or “< >” for negative numbers (less than zero).

You can also print leading dollar signs (\$), set decimal place alignment and otherwise “dress up” your data.

Using ReportStar to Print Labels in Two or More Columns

First, position the name and address report fields for the first label that will print (on the left of the label stock); then create identical fields in columns to the right. Define the identical fields as equivalent to the first column of fields.

Example: (numbers in parenthesis represent field numbers)

(1)	(2)
(3)	(4)
(5) (6) (7)	(8) (9) (10)

Define field 002 as equivalent to field 001.
These two fields hold name data.

Define field 004 as equivalent to field 003.
These two fields hold address data.

Define field 008 as equivalent to field 005.
These two fields hold city data.

Define field 009 as equivalent to field 006.
These two fields hold state data.

Define field 010 as equivalent to field 007.
These fields hold zip code data.

Practice creating a report with equivalent fields using the CLIENTSR example files. In fact, you can begin with the report you created in Chapter 7. Delete the telephone report fields; then draw a second column of name and address fields and define them as equivalent to the name and address report fields defined in Chapter 7.

Using Non-Standard Error Reporting

ReportStar allows you to choose from several levels of error reporting. For example, an error list can be written to a disk automatically. You can also ask REPORT to stop running the report when it finds particular types of errors or more than a specified number

of errors. The error reporting level you choose can save time when you are creating and testing complicated report specifications.

Now, use ReportStar to Look at Your Database and Run Some Reports

First, remember that you can use DataStar to create datafiles. ReportStar can rearrange the data records in the datafiles and put the data into a report.

If you don't have any datafiles, begin by using FormGen to create form definition files, and then enter data with DataStar.

If you do have datafiles and form definition files, you might begin by looking at the forms and asking yourself what you'd like to know about the data stored in the datafiles. Once you look at the printed reports, you may want to change them with REDIT (as you did in Chapters 6 and 8.)

When you look at these Quick Reports you can decide if you want totals by other fields in the report. Use FormGen to change the Key structure, sort the files to match the new Key structure, and then run different Quick Report summaries (as you did in Chapter 5).

Think about how you can combine the data stored in different datafiles into one report (as you did in Chapter 8). For example, you can take a balance due from one datafile, add total orders from another datafile, subtract payments from a third datafile, and calculate a new balance due.

Remember to use CTRL J in REDIT when you want more information about any prompt.



-A-

Abandon Report, 1-15

Access,

reference file, 6-10

sequential, 6-10

-B-

Back Up Files, 2-23, A-09

-C-

Calculations, 8-18

accumulator (Summary), 8-18

rounding, A-13

unless/then expression, 8-22

Clear Condition, Field Definition, 8-25

Column Titles in RGEN, 1-10

Control Break Fields, (*), 8-14

Control W Listing, 6-19

-D-

Datafiles

names, entry, 6-11

volume, 6-11, 6-12

Disk Buffer, 6-11

Drawing Fields (REDIT), 7-12

-E-

Edit Mask, 8-19, A-14

float characters, 8-23

status line, 7-13

Errors, 1-19

fatal errors, 1-19

reporting, A-15

warnings, 1-19

Example Files, iv

Exit Screens

REDIT, 6-21

RGEN, 1-14, 1-15

-F-

data justification, 8-23

entry (^ R), 7-15

field source, 7-16

index field, 8-11

load condition, 8-24

locate field (Control Q), 7-15

Field Names

column display (RGEN), 1-08

in REDIT, 7-15

intermediate fields (RGEN), 1-22

order, 1-10

select (RGEN), 1-12, 3-07

Field Numbers, REDIT, 7-15

File Access,

reference file, 6-10

sequential, 6-10

File Description, 6-08

review, A-04

Files

access, A-10

examples, iv

input, 8-07

output, 8-20, 8-10, 8-24

reference, 8-08

Float Characters, 8-23

Form Definition File

names, 1-08

select (RGEN), 1-09

FormSort, 5-05

sort order, 5-11

-H-

Help Menu (RGEN), 1-08

How to use the Training Guide, i

-I-

Include If, A-12, 6-14

Index Field, 8-11

key, 8-11

Install, 1-06

Instruction Message, RGEN, 1-08

Intermediate Fields, RGEN, 1-22

-K-

Key Fields
 in RGEN, 3-09
 index field, 8-11
selecting, 4-17
Key Structure, 3-10

-L-

Layout Screen (REDIT), 6-15
 drawing fields, 7-12
 print control commands, 6-17, 7-19
 scrolling window, 7-10
 special effects, printing, 6-16
Listing (^W), 6-19
Load Condition, 8-24
Logged Drive, change (^L), 2-23

-O-

Output files, 8-20, 8-10, 8-24

-P-

Pad Character, 7-22
Printing Report, 1-17
Procedure Numbers, i

-Q-

Quick Report
 see RGEN

-R-

REDIT
 exit screen choices, 6-22
 field names, 7-15
 index field, 8-11
 layout screen, 6-15
 reference files, 8-08
 review A-04
 start, 6-05
REPORT,
 review, A-07
 start, 1-15, 1-16, 4-12

RGEN,

 logged drive, change (^L), 2-23
 start, 1-06
 start quickly, 2-06
Record counts, 1-12
 by key, 3-11
 by page, 1-13
 by report, 1-13
Report Layout, review, A-05
Report Specification File, naming, 1-07
Report to Disk File, 1-17, A-08

-S-

Sort Order, 5-11
Starting Up, v
Status Line,
 edit mask, 7-13
 layout screen, 6-15
 number of columns used, 4-17
Summaries,
 by key, 3-13, 4-09
 total, average, largest, smallest, 1-14
Summary Selection Screen, 1-11

-T-

Tab (^I), 7-12
 set tab stop (Control U), 7-11
Toggle Keys, RGEN
 instruction message (^K), 1-08
 help screens (^J), 1-08

-U-

Unless/Then expression, 8-22

-W-

Warnings, 1-19

-Z-

Zephron, iii



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